DENON

Hi-Fi Component

SERVICE MANUAL
MODEL DN-2500F

DOUBLE CD PLAYER

— TABLE OF CONTENTS —

NIPPON COLUMBIA CO., LTD.

SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.

2. Retain Instructions – The safety and operating instructions should be retained for future reference.

3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.

4. Follow Instructions – All operating and use instructions should be followed.

5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.

6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.

8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

11. Grounding or Polarization – Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.

15. Power Lines – An outdoor antenna should be located away from power lines.

16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.

17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:

A. The power-supply cord or the plug has been damaged; or

B. Objects have fallen, or liquid has been spilled into the appliance; or

C. The appliance has been exposed to rain; or

D. The appliance does not appear to operate normally or exhibits a marked change in performance; or

E. The appliance has been dropped, or the enclosure damaged.

20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FIGURE A
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE

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IMPORTANT TO SAFETY

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

1. Handle the power supply cord carefully
Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.

2. Do not open the top cover
In order to prevent electric shock, do not open the top cover.
If problems occur, contact your DENON dealer.

3. Do not place anything inside
Do not place metal objects or spill liquid inside the CD player.
Electric shock or malfunction may result.

Please record and retain the Model name and serial number of your set shown on the rating label.
Model No. DN-2500F   Serial No. _____

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

• FOR U.S.A. & CANADA MODEL ONLY

CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

• POUR LES MODELES AMERICAINS ET CANADIENS UNIQUEMENT

ATTENTION

POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

NOTE:
This CD player uses the semiconductor laser. To allow you to enjoy music at a stable operation, it is recommended to use this in a room of 5°C (41°F) ~ 35°C (95°F).

LABELS (for U.S.A. model only)

CERTIFICATION
THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.

CAUTION:
USE OF CONTROLS OR ADJUSTMENTS OR REFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

NOTE:
This unit may cause interference to radio and television reception if you do not operate it in strict accordance with the OPERATING INSTRUCTIONS.
This unit complies with Class B computing device rules in accordance with the specifications in Sub-part J or Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If the unit does cause interference to any radio or television reception, try to reduce it by one or more of the following means:
a) Turn the other unit to improve reception.
b) Move this unit.
c) Move this unit away from reception.
d) Plug this unit respectively into a different AC outlet.

* This is note in accordance with Section 15.838 of the FCC Rules.

"CLASS 1 LASER PRODUCT"

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARO! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VARNING: OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERATS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

2

LCD

Figure 3 / Abbildung 3 / Figure 3 / Figura 3 / Figur 3 / 圖3

RC-44
CONTROL UNIT / STEUERUNGSTEIL / TELECOMMANDE / UNIDAD DE
CONTROL / KONTROLLDEL / 控制機組

DENON

DN-2500F
REMOTE CONTROL UNIT RC-44

Figure 1 / Abbildung 1 / Figure 1 / Figura 1 / Figur 1 / 圖1

RC-44
CONTROL UNIT / STEUERUNGSTEIL / TELECOMMANDE / UNIDAD DE
CONTROL / KONTROLLDEL / 控制機組

Figure 4 / Abbildung 4 / Figure 4 / Figura 4 / Figur 4 / 圖4

REAR PANEL / RÜCKSEITE / PANNEAU ARRIERE / PANEL TRASERO / BAKPANEL / 背面

DN-2500F
MAIN UNIT / HAUPTTEIL / UNITE PRINCIPALE / UNIDAD PRINCIPAL /
HUVUDENHET / 主機

SCREW
SCHRAUBE
VIS
TORNILLO
SKRUV
螺絲

FOOT SPACER / FUSSABSTANDSHALTER /
ESPACEUR DE PIED / ESPACIADOR DE
PIE / AVSTÅNDSBRICKA FÖR FÖTEN / 墊腳

7 x 11 hole
7 x 11 Öffnung
trou de 7 x 11
Orificio de 7 x 11
7 x 11 hål
7 x 11 孔

REAR PANEL / RÜCKSEITE / PANNEAU ARRIERE / PANEL TRASERO / BAKPANEL / 背面

❶ -A (EUROPE and ASIA Model only) / ❶ -A (nur für europäische und asiatische Modelle)
❶ -A (Uniquement pour le modèle d'Europe et d'Asie) / ❶ -A (Sólo para modelos de Europa y Asia)
❶ -A (Endast modeller för Europa och Asien) / ❶ -A 本電源 (只限於歐洲及亞洲機式)

Figure 2 / Abbildung 2 / Figure 2 / Figura 2 / Figur 2 / 圖2

3

MAIN FEATURES

The DN-2500F is a double CD player which incorporates all of the popular functions from the DN-2000FMKII and adds additional features for more advanced DJ mixing and remixing.

(1) The DN-2500F can be easily mounted on a standard 19-inch rack.

(2) The player unit and control unit are connected by a single cord, providing installation freedom.

(3) Playback begins immediately when the PLAY button is pressed **(Instant Start)**

(4) Pitch is adjustable using a long-throw slider, providing an analog feel.

(5) The pitch can be changed temporarily based on the already adjusted pitch **(Pitch Bend)**

(6) The point at which the sound actually starts is searched for automatically when a track is selected, eliminating troublesome searching operations **(Cue to Music)**

(7) Searching is possible in units of single frames (1/75 of a second), the minimum time unit on CDs, for maximum precision **(Pitch Bend)**

In addition to the above functions (all provided on the DN-2000FMKII), the DN-2500F also includes the following functions.

(8) The range of the pitch control slider is selectable between ± 4%, ± 8% and ± 16%.

(9) A Sampler function is included which provides over eight seconds of stereo sampling per side. Sample playback is triggered from the PLAY/PAUSE button while in sample mode **(Sampler)**

(10) Familiar Jog/Shuttle dial controls allow fast and accurate searching of CD's **(Jog Shuttle)**

(11) Key control function for adjusting the playback key **(Key Control)**

(12) Voice Reducer function for reducing the sound of the vocals **(Voice Reducer)**

(13) Brake function for gradually slowing the playback speed before stopping **(Brake)**

(14) Memory function for recording and recalling disc identification data, cue point data etc. **(Custom Setting Memory)**

(15) Direct Search function for directly accessing a specific point on a disc or a specific index number using the number buttons **(Direct Search)**

(16) Preset function for setting functions according to the usage purpose.

(17) Fader input **(Mini Jack)**

(18) Servo Auto Stop function for Spindle Motor

NOTE:
This CD player uses the semiconductor laser. To allow you to enjoy the scan a stable operation, it is recommended to use this in a room of 5°C (41°F) - 35°C (95°F)

CAUTION: (U.S.A. and Canada model only)

Whenever the power switch is in the OFF state, the apparatus is still connected on AC line voltage

Please be sure to unplug the cord when you leave home for, say, a vacation.

Be sure turn on POWER switch after a Remote cable of RC-44 is connected to the Player unit, otherwise, the apparatus may not work correctly.

CAUTION: (Europe and Asia model only)

To use the player, turn on the main power switch on the rear panel

Please be sure to turn off the main power switch when you leave home for, say, a vacation.

DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product, to which this declaration relates, is in conformity with the following standards.

EN60065, EN55013, EN55020, EN60555-2 and EN60555-3
Following the provisions of 73/23/EEC, 89/336/EEC and 93/68/EEC Directive

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NOTE ON USE / HINWEISE ZUM GEBRAUCH / OBSERVATIONS RELATIVES A L'UTILISATION
NOTE SULL'USO / NOTAS SOBRE EL USO / ALVORENS TE GEBRUIKEN / OBSERVERA
OBSERVAÇÕES QUANTO AO USO

- Avoid high temperatures.
  Allow for sufficient heat dispersion when installed on a rack.
- Vermeiden Sie hohe Temperaturen.
  Beachten Sie, daß eine ausreichend Luftzirkulation gewährleistet wird, wenn das Gerät auf ein Regal gestellt wird.
- Evitar des temperatures élevées.
  Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.
- Evitate di esporre l'unità a temperature alte. Assicuratevi che ci sia un adeguata aerazione quando desiderate installare l'unità in un mobile per componenti audio.
- Evite altas temperaturas.
  Permita la suficiente dispersión del calor cuando esta instalado en la consola.
- Vermijd hoge temperaturen.
  Zorg voor een ruime hittealvoer indien het apparaat op een rek wordt geplaatst.
- Undvik höga temperaturer.
  Se till att det finns möjlighet till god värmeavledning vid montering i ett rack.
- Evite temperaturas altas.
  Conceda suficiente dispersão de calor quando do o equipamento for instalado numa prateleira

- Keep the set free from moisture, water, and dust.
- Halten Sie das Gerät von Feuchtigkeit, Wasser und Staub fern.
- Protéger l'appareil contre l'humidité, l'eau et la poussière.
- Tenete l'unità lontana dall'umidità, dall'acqua e dalla polvere.
- Mantenga el equipo libre de humedad, agua y polvo.
- Laat geen vochtigheid, water of stof in het apparaat binnendringen.
- Utsätt inte apparaten för fukt, vatten och damm.
- Mantenha o aparelho livre de qualquer umidade, de água ou poeira.

- Unplug the power cord when not using the set for long periods of time.
- Wenn das Gerät eine längere Zeit nicht verwendet werden soll, trennen Sie das Netzkabel vom Netzstecker.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.
- Disinnestate il filo di alimentazione quando avete l'intenzione di non usare il filo di alimentazione per un lungo periodo di tempo.
- Desconecte el cordón de energía cuando no utilice el equipo por mucho tiempo.
- Neem altijd het netsnoer uit het stopkontakt wanneer het apparaat gedurende een lange periode niet wordt gebruikt.
- Koppla ur nätkabeln om apparaten ej skall användas i lång tid.
- Desligue o fio do condutor de força quando o aparelho não tiver que ser usado por um longo período.

- Do not let foreign objects in the set.
- Keine fremden Gegenstände in das Gerät kommen lassen.
- Ne pas laisser des objets étrangers dans l'appareil.
- È importante che nessun oggetto è inserito all'interno dell'unità.
- No deje objetos extraños dentro del equipo.
- Laat geen vreemde voorwerpen in dit apparaat vallen.
- Não deixe objetos estranhos no aparelho.

- Do not let insecticides, benzene, and thinner come in contact with the set.
- Lassen Sie das Gerät nicht mit Insektiziden, Benzin oder Verdünnungsmitteln in Berührung kommen.
- Ne pas mettre en contact des insecticides du benzène et un diluant avec l'appareil.
- Assicuratevi che l'unità non venga in contatto con insetticidi, benzina o solventi.
- No permita el contacto de insecticidas, gasolina y diluyentes con el equipo.
- Laat geen insektenverdelgende middelen, benzine of verfverdunner met het apparaat in kontakt komen.
- Se till att inte insektsmedel på sprayburk, bensin och thinner kommer i kontakt med apparatens hölje.
- Não permita que inseticidas, benzeno e dissolvente entrem em contacto com o aparelho.

- Do not obstruct the ventilation holes.
- Die Belüftungsöffnungen dürfen nicht verdeckt werden.
- Ne pas obstruer les trous d'aération.
- Non coprite i fori di ventilazione.
- No obstruya los orificios de ventilación.
- De ventilatieopeningen mogen niet worden beblokkeerd.
- Täpp inte till ventilationsöppningarna.
- Não obstrua os orifícios de ventilação

*For sets with ventilation holes

- Handle the power cord carefully.
  Hold the plug when unplugging the cord.
- Gehen Sie vorsichtig mit dem Netzkabel um.
  Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen.
- Manipuler le cordon d'alimentation avec précaution.
  Tenir la prise lors du débranchement du cordon.
- Manneggiate il filo di alimentazione con cura.
  Agite per la spina quando scollegate il cavo dalla presa.
- Maneje el cordón de energía con cuidado.
  Sostenga el enchufe cuando desconecte el cordón de energía.
- Hanteer het netsnoer voorzichtig.
  Houd het snoer bij de stekker vast wanneer deze moet worden aan- of losgekoppeld.
- Hantera nätkabeln varsamt.
  Håll i kabeln när den tas ur el-uttaget.
- Manuseie com cuidado o fio condutor de energia.
  Segure a tomada ao desconectar o fio.

- Never disassemble or modify the set in any way.
- Versuchen Sie niemals das Gerät auseinanderzunehmen oder auf irgendeine Art zu verändern.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.
- Non smontate mai, né modificate l'unità in nessun modo.
- Nunca desarme o modifique el equipo de ninguna manera.
- Nooit dit apparaat demonteren of op andere wijze modificeren.
- Ta inte isär apparaten och försök inte bygga om den.
- Nunca desmonte ou modifique o aparelho de alguma forma.

1 PREPARATIONS

(1) Checking the Contents

Check that the carton contains the following items.

(2) Installing the Units

Mount the units onto your console or rack with 19" EIA rack rails.

CAUTION:

* The DN-2500F will work normally when the main units mounted with the front panel within 20 degrees of the vertical plane. If the unit is tilted excessively, discs may not load or unload properly. (Figure 5)

Max.20°

DN-2500F

Figure 5
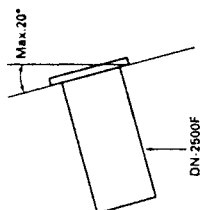
(3) Connections

① Turn off the POWER switch.
② Connect the RCA pin cords to the inputs on your mixer.
③ Connect the control cord to the REMOTE connector on the RC-44.

CAUTION:

* Be sure to use the supplied control cord. Using another type of cable may result in damage.
* Be sure the power is off when connecting the control cord. Otherwise the units may not work properly.

CONTENTS

2 NAMES AND FUNCTIONS

Below is a description of the functions of the controls listed on Pages 4 and 5.

(1) DN-2500F (Main Unit) Front Panel

1 2 POWER (Power Switch and Indicator)
When the POWER switch is pressed, the power turns on and the POWER indicator lights.

3 Disc Holders
Place the discs in these holders. Press the OPEN/CLOSE buttons to open and close the disc holders.

4 OPEN/CLOSE Buttons
Press these to open and close the disc holders. The control unit also includes OPEN/CLOSE buttons. The disc holders cannot be opened during playback, so playback must be stopped before pressing these buttons.

(2) RC-44 (Control Unit) Front Panel

5 LCD
These liquid crystal displays (LCDs) indicate the current track numbers, minutes, seconds, frames and memory location numbers.

6 TIME Buttons
These buttons switch the time display between elapsed time and remaining time. The selected mode is indicated by the ELAPSED and REMAIN indicators on the LCD.

7 OPEN/CLOSE Buttons
Press these to open and close the disc holders. The main unit also includes OPEN/CLOSE buttons. The disc holders cannot be opened during playback, so playback must be stopped before pressing these buttons.

8 CONT./SINGLE Buttons
Press these to switch between the single and continuous play modes. The selected mode is indicated by the SINGLE and CONTINUE indicators on the LCD.

9 LOOP Buttons
Press these buttons to start loop mode. The LOOP LED is lit solid during loop playback.

10 INDEX Button
Press this button to turn the index mode on and off. The "INDEX" indicator lights when the index mode is turned on.

11 Shuttle Dials
Use these dials to select the scanning direction and speed. The disc is scanned in the forward direction when the shuttle dial is turned clockwise from the neutral position, and in the reverse direction when the shuttle dial is turned counterclockwise. The scanning speed increases as the wheel is turned further.

12 Jog Dials
When these dials are turned during the search operation, the point at which the sound is being produced moves by a number of frames corresponding to the number of clicks.

13 A Buttons
Use these buttons to set the starting point for loop playback.

14 15 TRACK/INDEX SAMP. PITCH – |◀◀ and TRACK/INDEX SAMP. PITCH + ▶▶| Buttons
Use these buttons to select the track, the index, to be played.
Also selects the sampler pitch during sample playback.

16 CUE Buttons
Press the CUE buttons during playback to return to the position at which playback started. The player is ready to play when the CUE LED stops flashing, remaining lit.

17 PLAY/PAUSE ▶|| Buttons
Use these buttons to start playback. Press once to start playback, once again to set the pause mode, and once more to resume playback.

18 SAMPLER Buttons
Press these buttons to start recording the sample. Press the PLAY/PAUSE button after recording to set the sample play mode. These are also used to switch between the disc play and sample play mode.

19 B Buttons
Use these buttons to set the end point for loop playback.

20 EXIT/RELOOP Button
Press these buttons during loop playback to stop loop playback and continue normal playback past the B point (exit), or to return to loop playback for a loop which was previously exited (reloop).

21 Pitch Sliders
Use these sliders to adjust the BPM. Slide up to decrease the BPM, down to increase the BPM.

22 PITCH Buttons
Use these buttons to enable or disable pitch adjustment using the pitch sliders. Pitch adjustment with the pitch slider is enabled when the PITCH LED is lit.

23 KEY CONTROL Buttons
When these buttons are pressed, the key control mode is turned on and the key can be adjusted with the ▲ and ▼ buttons.
When pressed again, the key adjust mode is turned on and the key remains the same even if the pitch is changed (KEY ADJUST).
Press the buttons again to return to the normal mode.

24 ▼ Buttons
When the key control mode is on, press these buttons to lower the key.

25 ▲ Buttons
When the key control mode is on, press these buttons to raise the key

26 27 PITCH BEND – and PITCH BEND + Buttons
The pitch changes temporarily while these buttons are pressed. Release the buttons to return to the original BPM.

28 REVERSE Buttons
Press these buttons to turn the sampler's reverse playback mode on and off.
After pressing the REVERSE button, the direction of playback does not change until the PLAY/PAUSE button is pressed.
The REVERSE LED lights when the reverse playback mode is on.

29 30 1 and 2 Buttons
Use these buttons to select which player the number buttons will function for.

31 MEMO CALL Button
When the CD "1" or "2" button is pressed while pressing this button, the data stored in the memory is called out and set.

32 PRESET Button
Press the CD "1" or "2" button while pressing this button to set CD 1 or 2 to the preset mode.
Press this button to set the preset data.
Press the button again while pressing the CD "1" or "2" button to turn the preset mode off.

33 CLEAR Button
Press this button to clear the data which was input using the number buttons.

34 0 – 9 Buttons (Number Buttons)
Use these buttons to input track numbers, times (minutes and seconds), and select the PRESET items.

35 VOICE REDUCER Button
When the CD "1" or "2" button is pressed while pressing this button, CD 1 or 2 is set to the voice reducer mode, and the level of the vocals in the music is reduced. (The "VR" indicator lights.)
Press the CD "1" or "2" button again while pressing the button to return to the normal playback mode (The "VR" indicator turns off.)

36 MEMO Button (Custom Setting Memory)
Press the CD "1" or "2" button while pressing this button to store the CD 1 or 2 settings (disc data, cue point, loop start point, loop end point, pitch) (The "M" indicator lights.)

37 BRAKE Button
When the CD "1" or "2" button is pressed while pressing this button, CD 1 or 2 is set to the brake mode and brake playback is enabled (The "BK" indicator lights.)
Press the CD "1" or "2" button again while pressing the button to return to the normal playback mode. (The "BK" indicator turns off.)

(3) DN-2500F (Main Unit) Rear Panel

38 LINE OUT 1 and 2
The audio signals from each player are output from these jacks.

39 REMOTE
Connect this connector to the RC-44 control unit using the included control cord

40 FADER IN
Use this when using the unit with a console fader (Mini Jack)

A MAIN POWER (Europe and Asia Model only)
Make sure to switch on

(4) RC-44 (Control Unit) Rear Panel

41 Control Connector
Connect this connector to the REMOTE connector on the DN-2500F (main unit) using the included control cord

(5) LCD

42 43 44 TRACK, MINUTE, SECOND and FRAME Displays
These displays indicate information on the current position and time

45 BAR Indicator
These ten indicators provide a visual display of the approximate position of the pickup within the current track.

46 ELAPSED Indicators
These indicate that the time shown on the display is the elapsed time.

47 REMAIN Indicators
These indicate that the time shown on the display is the remaining time.

48 SINGLE Indicators
When these indicators are lit, playback will stop at the end of the track.

49 CONTINUE Indicators
When these indicators are lit, playback will continue until the end of the disc.

61 Pitch Display
This indicates the playback speed (pitch). (−16.0 to +16.0)

62 Key/Index Display
This indicates the key when in the key control mode. (−16.0 to +16.0) This also indicates the track's index number (01 to 99).

63 Index Indicator (INDEX)
This lights when the track's index number is displayed.

64 Key Indicator (KEY)
This lights when the key is displayed.

65 Custom Setting Memory Indicator ([M])
This lights when there is data stored in the memory.

66 Voice Reducer Indicator ([VR])
This lights when the voice reducer mode is on.

67 Brake Indicator ([BK])
This lights when brake playback is enabled.

3 BASIC OPERATIONS

(1) Opening and Closing the Disc Holder and Loading Discs

① Opening and closing the disc holder
• This operation only works when the power is on.
• Press the OPEN/CLOSE button to open or close the disc holder OPEN/CLOSE buttons are provided on both the main unit and control unit (RC-44).
• The disc holders cannot be opened during playback to prevent playback from being interrupted if the OPEN/CLOSE button is pressed accidentally. Stop playback, then press the OPEN/CLOSE button.

② Loading discs
• Hold the disc by the edges and place it in the disc tray. Do not touch the signal surface (the glossy side).
• When using 12cm discs, place the disc in the inner tray guides (Figure 6); and when using 8cm discs, place them securely in the inner guides (Figure 7)
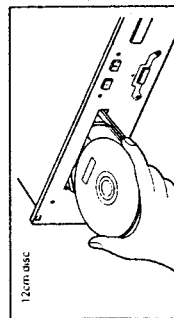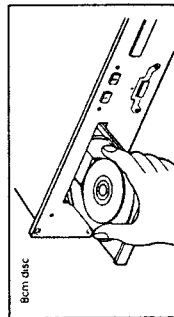
CAUTION:
• Do not place any foreign objects in the disc tray, and do not place more than one disc in the disc tray at a time. Doing so may result in malfunction.
• Do not push the disc tray in manually when the power is off, as this may result in malfunction and damage the player.

Figure 6 (12cm disc)

Figure 7 (8cm disc)

(2) Selecting Tracks or INDEX
• Press the TRACK buttons once to move to the next or preceding track.
• Hold down the TRACK buttons to change tracks continuously at a higher speed
• When a new track is selected during playback, playback begins as soon as the search operation is completed.
• Tracks can also be selected while the disc holder is open. The selected track is searched for when the disc holder is closed.
• If the TRACK ►►| button is pressed while on the last track, the first track is selected. Likewise, if the TRACK |◄◄ button is pressed while on the first track, the last track is selected

To go back through the tracks / To advance through the tracks

Tracks change as follows
(This is for a disc containing 4 tracks.)
→ 01 ◄— 02 ◄— 03 ◄— 04 ◄—

→ 01 —→ 02 —→ 01 —→ 04
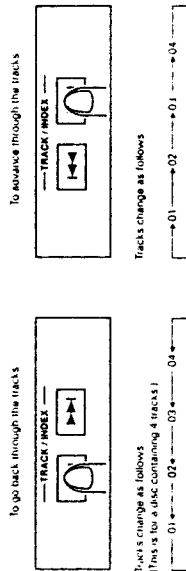
Figure 8

• When a track is selected, the DN-2500F automatically cues to the point at which the sound begins, skipping silent sections at the beginning of tracks (Cue to Music) Level of cue point can be selected with preset item 4
• When the INDEX button is pressed and the index search mode is set, use the INDEX ►►| and |◄◄ buttons for the index search operation

(3) Starting Playback
• Press the PLAY/PAUSE button during pause or cue mode to start playback.
• Playback begins immediately when the PLAY button is pressed. (Instant Start)
• The PLAY/PAUSE LED lights when playback starts.
• The point at which playback starts is automatically stored in the memory as the cue point. When the CUE button is pressed, the pickup then returns to the cue point (the point at which playback started). (Back Cue)

During pause / Blinks / After back cue / Lit steadily

Press the PLAY/PAUSE button / Play will begin / Lit
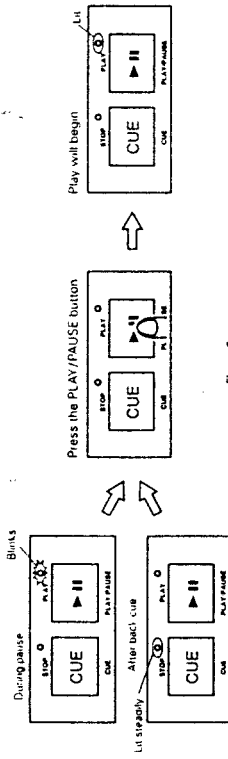
Figure 9

• The play mode can be selected by pressing the CONT./SINGLE button.
• When the SINGLE indicator is lit, playback stops automatically at the end of that track, and the disc is cued to the playback start position.
• When the CONTINUE indicator is lit, playback continues until the end of that disc. When playback is finished, the disc is cued to the playback start position.

7

(4) Stopping Playback

• There are two ways to stop playback.
① Press the PLAY/PAUSE button during playback to pause at that point.
② Press the CUE button during playback to return to cue mode at the position at which playback started (Back Cue)

During play

Press the PLAY/PAUSE button

Press the CUE button

Pause

Back Cue

Lit steadily after blinking stops

Blinking
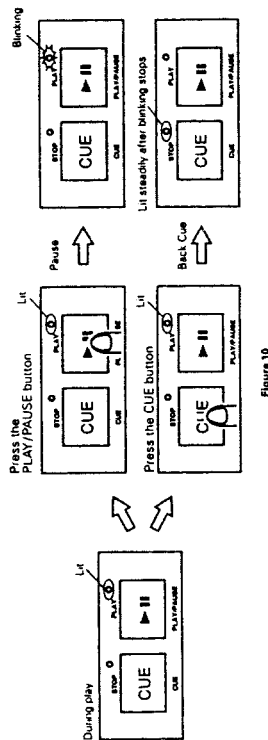
Figure 10

(5) Pausing

• Press the PLAY/PAUSE button to switch between play and pause mode.
• The PLAY/PAUSE LED blinks when the pause mode is set.
• Figure 11 shows the relationship between the play and pause
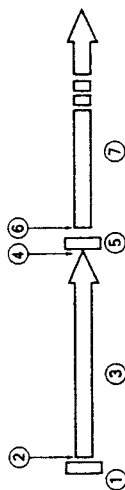
Figure 11

① The player has completed the cue or pause operation and is waiting for the play start command.
② When the PLAY/PAUSE button is pressed, playback starts and the cue point is stored in the memory.
③ Playing
④ The pause mode is set when the PLAY/PAUSE button is pressed again.
⑤ Pausing
⑥ Playback resumes when the PLAY/PAUSE button is pressed again.
⑦ Playing

(6) Cueing

• "Cueing" is the action of moving to a specified point (the cue point) and waiting for playback to begin (cue mode). When the PLAY/PAUSE button is pressed after cueing, playback starts immediately. (Instant Start)
• When the track search operation is completed after pressing the TRACK buttons, the player locates the position at which the sound starts and automatically cues there. (Cue to Music)
• If the CUE button is pressed during the search operation with the jog dial or the scanning operation with the shuttle dial, the point at which the button is pressed is set as the cue point and cueing starts.
• Figure 12 shows the relationship between the play and back cue operations.
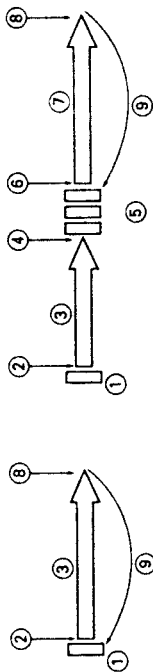
(A) Play and cue

(B) Play, pause and cue

Figure 12

① The player has completed the cue or pause operation and is waiting for the play start command
② When the PLAY/PAUSE button is pressed, playback starts and the cue point is stored in the memory.
③ Playing
④ The pause mode is set when the PLAY/PAUSE button is pressed again.
⑤ Pausing
⑥ When the PLAY/PAUSE button is pressed again, playback resumes and the new cue point is stored in the memory.
⑦ Playing
⑧ Press the CUE button.
⑨ The pickup returns to the cue point. (Back Cue)

(7) Searching

• Searching is the function which allows you to continuously monitor a certain section of the disc and manually change the playback position in small increments. Searching is used to set playback start points and loop points with precision.
• Turn the jog dial while in the play, pause or cue mode to begin searching. The sound for one revolution of the disc is output repeatedly. The point at which the sound starts (the search point) is indicated on the LCD.
• When the jog dial is turned, the point from which the sound is output moves a number of frames corresponding to the number of clicks, and the time display on the LCD also changes
• The search point moves in the forward direction when the jog dial is turned clockwise, in the reverse direction when the jog dial is turned counterclockwise.
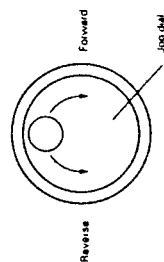
• The search point displayed on the LCD during the search operation is automatically stored in the memory as the cue point.
• If the jog dial is turned while in play mode, playback resumes automatically once the jog dial is released.

Reverse

Forward

jog dial (inner dial)

Figure 13

(8) Scanning

- Scanning allows you to move quickly forward or backward through the CD while monitoring the sound, and is used, for example, to locate a specific section in a song.
- Turn the shuttle dial while the player is in the play, pause or cue modes to begin scanning. The disc moves rapidly forward or backward and the sound is output. The current point (scan point) is indicated on the LCD.
- The scanning speed depends on how far from the center point the shuttle dial is turned. The more it is turned, the faster the scanning speed.
- Turn the shuttle dial clockwise to scan in the forward direction, counterclockwise to scan in the reverse direction.
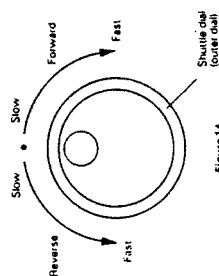
Figure 14

- The scanning point indicated on the LCD is automatically stored in the memory as the cue point.
- When the shuttle dial is released during scanning, it returns to the neutral position, scanning stops and the search mode is set. However, if scanning was started from play mode, playback resumes.
- When the dial is turned all the way to the end, the point of playback is skipped approximately one minute, played for about 3 seconds, then skipped again, etc.

[4] MATCHING THE BEATS PER MINUTE (BPM)

- With the DN-2500F, there are two ways to adjust the playing speed and match the BPMs of the two CDs:
  - Use the pitch slider to adjust the BPM statically. One of three adjustments ranges can be selected by the Preset Mode.
  - Use the PITCH BEND buttons to change the BPM temporarily. Use this after adjusting the BPM with the pitch slider.

(1) Pitch Slider

- To adjust the BPM by sliding the pitch slider up or down, first press the PITCH button to enable the pitch slider. The PITCH LED will turn on.
- With the pitch slider, the pitch can be adjusted within one of three ranges (±4%, ±8% or ±16%). (Can be selected with preset item 3)
- The BPM decreases when the pitch slider is moved upwards, increases when the pitch slider is moved downwards.
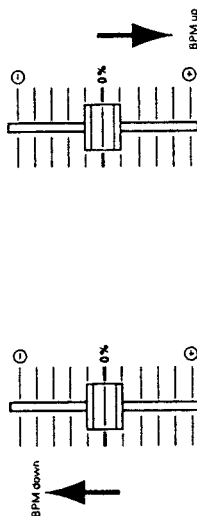
Figure 15

(2) Pitch Bending

- The BPM increases or decreases temporarily while the PITCH BEND + or PITCH BEND – button is pressed.
- The extent to which the PITCH BEND button changes the BPM is proportionate to the amount of time the button is pressed. The longer the button is held down, the greater the percentage of change.
- The PITCH BEND button changes the BPM within a range of ±12% when the pitch adjustment range is ±4% or ±8%, and within a range of ±18% when the pitch adjustment range is ±16%.
- Figure 16 shows an example of how to use the pitch bend function. In this example, both players are playing and the BPM has already been matched with the pitch sliders.

The CD1 and CD2 BPMs are matched but the bass beats are off

The bass beats also match

CD1 bass beat — Bass beat off

CD2 bass beat
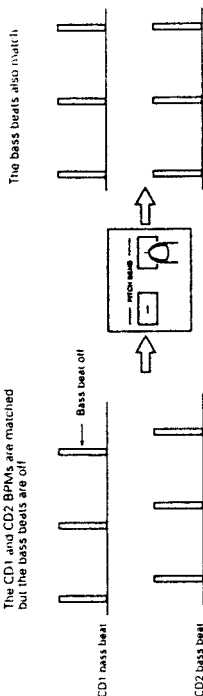
Figure 16

[5] SEAMLESS LOOP

The DN-2500F is equipped with a seamless loop function.
NOTE: The seamless loop mode cannot be used at the same time as the sampler mode.

(1) Starting seamless loop playback

- Press the PLAY/PAUSE button
  (The PLAY/PAUSE button's LED lights.)

- Press the LOOP button to enter the seamless loop mode.
  (The LOOP button's LED flashes.)

- Press the A button to set the starting point (A)
  (The A button's LED lights.)

- Press the B button to set the ending point (B)
  (The B button's LED lights and the LOOP button's LED stops flashing, remaining lit.)
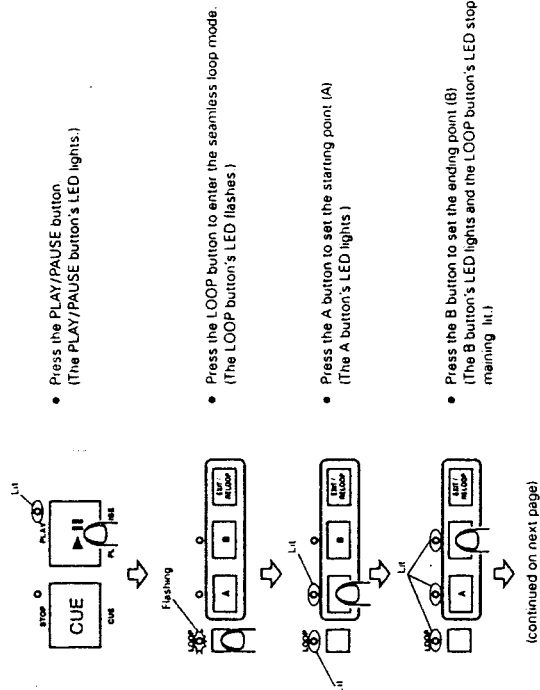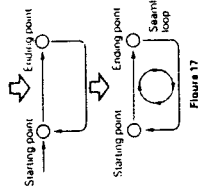
• When the ending point (B) is set, playback starts from the starting point (A) with no interruption in the sound.

• After this, the section between the starting point (A) and the ending point (B) is played repeatedly with no interruption in the sound.

Starting point — Ending point / Starting point — Ending point — Seamless loop

Figure 17

Alternative way to set the seamless loop starting point (A) and ending point (B)

• While the disc is playing, press the LOOP and B buttons. The last cue point is set as point A, and seamless loop playback begins.

• After setting point A, set the cue mode, press button A, then use the scan or search function to fine-adjust point A. (The same can be done for point B.)

(2) Leaving the seamless loop mode temporarily
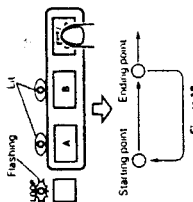
• Press the EXIT/RELOOP button while playing a seamless loop.
  (The LOOP button's LED starts flashing.)

• When the ending point (B) is reached, playback continues without returning to the starting point (A).

Flashing / Lit

Starting point — Ending point

Figure 18

(3) Replaying a seamless loop

• Press the EXIT/RELOOP button or button B during normal playback.
  (The LOOP button's LED stops flashing, remaining lit.)
  (The position at which button B is pressed is set as the new loop playback ending point (B).)

• Playback returns to the starting point (A) and seamless loop playback begins.

Lit

Starting point — Ending point

Press the EXIT/RELOOP button or button B
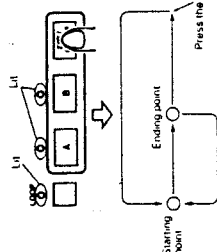
Figure 19

(4) Switching from seamless loop playback to normal disc playback
(Setting the normal playback mode without canceling the starting and ending points)
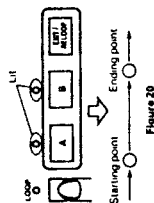
• Press the LOOP button within 1 second.
  (The LOOP button's LED turns off.)
  The normal playback mode is set.
  (Only the loop mode is canceled. Points A and B are not cleared.)

Starting point — Ending point

Figure 20

NOTE:
• The starting point (A) and ending point (B) settings are canceled when the disc is removed from the player.

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(5) Canceling the seamless loop settings
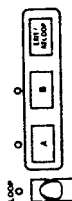
• Press the LOOP button for over 1 second.
  (The LOOP button's LED turns off.)
  When this is done, the starting point (A) and ending point (B) settings are automatically canceled.
  (The A and B buttons' LEDs turn off.)

Figure 21

NOTE:
• After canceling the seamless loop during loop playback, it may take about 5 seconds before the seamless loop mode is set again.

6 SAMPLER

The DN-2500F is equipped with a function for recording the sound of a disc for up to 8 seconds on both players. In addition, the recorded sound can be played normally, in the reverse mode (backwards) and in a loop. These sampler functions eliminate the need for a separate sampler.
NOTE: The sampler mode cannot be used at the same time as the seamless loop mode.

(1) Recording samples
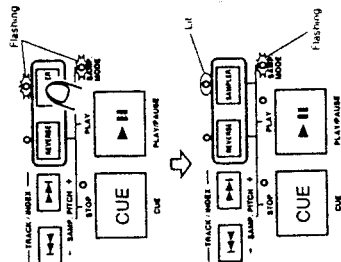
Flashing

Figure 22

• Press the SAMPLER button.
  (The SAMPLER button's LED and the SAMP MODE LED start flashing.)
  Recording starts.

• The sound is recorded for approximately 8 seconds.
  (The SAMPLER button's LED stops flashing, remaining lit.)
  Recording can also be stopped in less than 8 seconds by pressing the CUE button.
  (The SAMPLER button's LED stops flashing, remaining lit.)

NOTE:
• When sample recording is set while the disc is playing, playback continues after recording stops.
  When sample recording is set during the cue, pause or manual search mode, disc playback stops when recording stops.

19

(2) Playing the sample

Figure 23

- Press the PLAY/PAUSE button.
  (The PLAY/PAUSE button's LED lights.)
  The sample is played.

(3) Stopping the sample

Figure 24

- Press the CUE button.
  (The CUE button's LED lights.)
  The sample is stopped.

(4) Changing the sample's pitch

Figure 25

- Press the TRACK ▶▶I button to increase the sample's playing speed, the TRACK I◀◀ button to decrease it.
  The sample playing speed changes in steps of 0.5% and the speed flashes on the PITCH display section for approximately 3 seconds.
  (The sampler pitch range is ± 16%.)

(5) Setting the normal disc playback mode after recording a sample

Figure 26

- After the sample has been recorded, press the SAMPLER button.
  (The SAMP. MODE LED turns off.)
  Normal disc playback is now possible.
  The sample can be played again by pressing the SAMPLER button again.
  (The SAMP. MODE LED flashes.)

NOTE:
- When the SAMP. MODE LED is flashing, the following buttons function as sampler buttons, so they cannot be used for their normal operations:
  PLAY/PAUSE, CUE, TRACK ▶▶I, TRACK I◀◀ (However, the TRACK ▶▶I and I◀◀ buttons can be preset to be used as the normal track selection buttons. ITEM No. 2)
- The recorded sample is not cleared when the disc is removed from the player.

(6) Playing the sample in reverse

Figure 27

- Press the REVERSE button.
  (The REVERSE button's LED lights.)
  Reverse playback begins from the recording end position when the PLAY/PAUSE button is pressed after pressing the REVERSE button.

- Press the REVERSE button again.
  (The REVERSE button's LED turns off.)
  The reverse sample play mode is canceled.
  Sampler normal playback begins when the PLAY/PAUSE button is pressed after pressing the REVERSE button.

(7) Playing the sample in a loop

This setting can be turned on and off with the presettings. (ITEM No. 1)

(8) This clears the recorded sample

Figure 28

- Press the SAMPLER button for over 1 second.
  (The SAMPLER button's LED and the SAMP. MODE LED turn off.)
  This clears the recorded sample.

7 KEY CONTROL

The DN-2500F is equipped with a function for adjusting the key of the sound being played.

The display changes

- Press the KEY CONTROL button.
  (The KEY CONTROL button's LED lit.)
  (The current setting appears in the key section of the display.)
  The key can be adjusted.
  Press the KEY ▲ button to raise the key
  Press the KEY ▼ button to lower the key

- Press the KEY CONTROL button again.
(The KEY CONTROL button's LED starts flashing.)
(" Ad " appears in the key section of the display.)
The key can be adjusted to the normal key even when the pitch (speed) is changed.

NOTE:
The key adjustment range is ±16.0.

- Press the KEY CONTROL button again.
(The KEY CONTROL button's LED turns off.)
The key control function is cancelled.

Figure 29

8 VOICE REDUCER

The DN-2500F is equipped with a function to reduce the sound of the vocals in the music. This sound can be used as an effect sound for the sampler, etc.
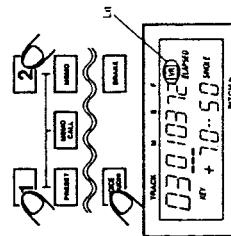
Figure 30

- Press the CD1 (or CD2) button while pressing the VOICE REDUCER button.
("VR" appears in the voice reducer section of the display.)
The voice reducer function is set.

- Once again press the CD1 (or CD2) button while pressing the VOICE REDUCER button.
("VR" turns off from the voice reducer section of the display.)
The voice reducer function is cancelled.

NOTE: Depending on the original recording, the vocals may not be completely eliminated.
This is even more effective when used with music in which the vocals are at the center.

9 BRAKE

The DN-2500F is equipped with a function for gradually slowing the playback speed before stopping. This sound can be used as an effect sound. (Playback stops in about 0.5 seconds.)

- Press the CD 1 (or CD 2) button while pressing the BRAKE button.
("BK" appears in the brake section of the display.)
The brake function is set.
Braking is performed when the PLAY/PAUSE button is pressed during playback while the brake mode is on.

- Once again press the CD 1 (or CD 2) button while pressing the BRAKE button.
("BK" turns off from the brake section of the display.)
The brake function is cancelled.

Figure 31

10 CUSTOM SETTING MEMORY

The DN-2500F is equipped with a function for storing and calling out disc identification data, cue points, pitches, and seamless loop starting points (A) and ending points (B).

(1) Storing data in the memory

- Cue up the player.
- Press the CD 1 (or CD 2) button while pressing the MEMO button.
("M" appears in the memory section of the display, and the memory number (0 to 199) flashes for approximately 3 seconds in the key section of the display.)
The above operation stores the following data in the memory:
  Disc identification data
  Cue point
  Current playback pitch (0.0% if the pitch mode is off)
  Seamless loop starting point (A) and ending point (B) (Only if set)
  In addition, if data is mistakenly registered, use the procedure in "(4) Clearing data" to clear the data.

Figure 32

NOTE:
In the cases described below, there is no space left in the memory. If you attempt to store data in the memory, "FL" appears and the data is not stored.
- When there are already 200 sets of data stored in the memory. (The maximum storage capacity is 200 discs and 200 sets of data.)
- When data for that track is already stored in the memory. (Only one set of data can be stored per track.)

12

22

23

(2) Overwriting previous data
(This is only possible if 200 sets of data are already stored.)
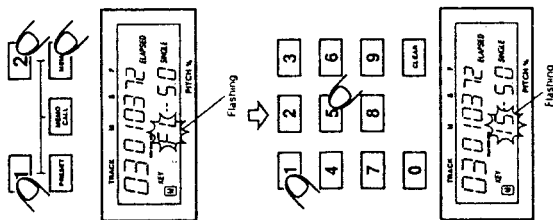
• Press the CD 1 (or CD 2) button while pressing the MEMO button.
(" FL " flashes in the key section of the display.)

• Use the number buttons to input the number of the memory to be overwritten.
(The memory number flashes in the key section of the display.)
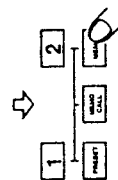
• Press the MEMO button.
("M" appears in the memory section of the display.)
The data is now overwritten.

Figure 33

(3) Recalling data
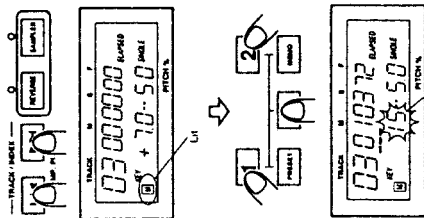
• When a custom setting memory disc is set in the player, the M indicator flashes, indicating that there is a memory.
• Use the TRACK ▶▶ and I◀◀ buttons to select the track whose data you want to recall.
("M" appears in the memory section of the display after the track is selected.)

• Press the CD 1 (or CD 2) button while pressing the MEMO CALL button.
(The memory number (0 to 199) of the recalled data flashes for approximately 3 seconds in the key section of the display.)
The data is recalled and the pickup moves to the cue point stored in the memory.
(The CUE button's LED lights. If seamless loop data is stored, the LOOP, A and B button's LEDs also light.)
In addition, the playback pitch is fixed to the registered playback pitch.
(The pitch LED flashes.)

NOTE: The track starting position changes through audio detection, so the time display of the called out cue point, A point and B point may be different from when the points were stored in the memory.

Figure 34

(4) Clearing data

• Use the TRACK ▶▶ and I◀◀ buttons to select the track whose data you want to clear.
("M" appears in the memory section of the display after the track is selected.)

11 DIRECT SEARCH

The DN-2500F is equipped with a function for directly accessing a specific position on the disc or a specific index number using the number buttons and the CUE and PLAY/PAUSE buttons.

(1) Direct track and time search
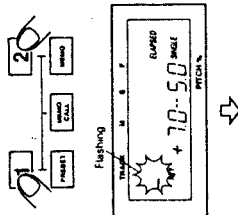
• Press the CD 1 (or CD 2) button.
("−" flashes in the track section of the display and the time section turns off.)

Flashing

(continued on next page)

• Use the number buttons to input the track, minutes, seconds and frame.
(If the input data does not exist on the disc, the input value flashes on the display and no other data can be input.)
There is no need to input the minute, second and frame data.

• Press the PLAY/PAUSE button.
Playback begins from the specified position.
(If the CUE button is pressed, the pickup moves to the specified position.)
The direct search mode is canceled when the CD 1 (or CD 2) button is pressed.

When inputting direct search data (ELAPSED) is displayed.

Figure 36

(2) Direct index search

Set the index mode, then use the same procedure as for direct track and time search to directly access the specified index number.

• Press the CD 1 (or CD 2) button while pressing the MEMO CALL button.

• Press the CLEAR button during the 3 seconds that the memory number (0 to 199) of the recalled data is flashing in the key section of the display. (The memory number and the "M" turn off from the key and memory sections of the display.)
The data is now cleared.

NOTE: Even when the data is cleared, the memory remains called out.

Figure 35

12 PRESETTINGS

The DN-2500F is equipped with a function for storing various types of preset data. This data is not lost when the power is turned off. Use this function to store in the memory the desired settings for the items described on the table on Page 29. The presettings can be made independently for CD 1 and CD 2. Use this function to operate the players with the optimum settings.

(1) Changing the preset data
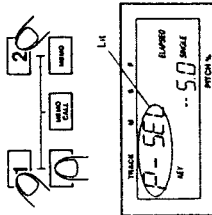
• Press the CD 1 (or CD 2) button while pressing the PRESET button ("P-SEL" appears in the track and time sections of the display, and the key section turns off.)

NOTE: The preset item can also be changed during disc playback.

(continued on next page)

(2) Table of Preset Functions

"*" indicates factory settings

Item no.	Item	Display "*" indicates a space Track/time	Key	Description
1	Sampler loop setting	S-LOOP	on / oF	ON Loop playback with sampler · OFF No loop playback with sampler
2	Pitch change setting during sample playback	SPEEd	on / oF	ON Pitch changed with sampler · No pitch change with sampler · OFF When this is set, the track can be selected with the TRACK buttons
3	Pitch adjustment range setting	Pitch	4.0 / 8.0 / 16.0	4% (0.1% step) Pitch can be increased or decreased within a range of ± 4% · 8% (0.1% step) Pitch can be increased or decreased within a range of ± 8% · 16% (0.2% step) Pitch can be increased or decreased within a range of ± 16%
4	Cue detection level setting	-72 -60 -36 LoP	-- -- H / oF	-72dB Cueing is performed not at the actual starting point of the track but at the point where the sound starts. The level for -60dB* detecting the first sound can be set to between -36dB and -36dB -72dB · OFF Cue detection off
5	EOM time setting	End	0 / 10 / 15 / 20 / 30 / 60 / 90	0sec · EOM OFF / 10sec / 15sec / 20sec / 30sec / 60sec / 90sec When the end of the track approaches, the LCD display starts flashing, visually warning the operator that the track is about to end. The time at which the display starts flashing can be set to between 10 and 60 seconds from the end of the track. NOTE: For some discs the EOM time may not be accurate
6	Disc holder auto close setting	CLOSE	on / oF	ON: The disc holder closes automatically after it is left open for approximately 1 minute. OFF · The disc holder does not close automatically
7	Setting of initial playback mode when power is turned on	nt Cont	Si / Co	Single · Playback ends at the end of one track / Continue · Playback continues through to the end of the disc
8	Setting of initial time display mode when power is turned on	ELA rE	EL / rE	Elapse · The elapsed time is displayed when the power is turned on / Remain · The remaining time is displayed when the power is turned on
9	Servo auto stop setting	SLEEP	on / oF	ON · The servo stops automatically. OFF · The servo does not stop automatically. Servo auto stop If no button is pressed for approximately 30 minutes in the pause or cue up modes, the servo stops and "SLEEP" is displayed · Press the CUE button to switch from the servo stop mode to the normal mode
0	Custom Setting Memory all clear setting	CL rC	on / oF	ON · All the memory data is cleared / OFF · Not all the custom setting memory is cleared. The setting returns to Off after all the data is cleared
CLEAR	Reset to factory settings	PS-CL	on / oF	ON · Sets the preset data to the factory settings / OFF · Leaves the preset data unchanged

• Use the number buttons to input the number of the preset item.
(The preset item number appears in the track and time sections of the display, and the preset data appears in the key section.)

Figure 37

• To select the preset data, press and hold in the number button corresponding to the preset item number.
(The preset data in the key section of the display changes and flashes.)

• After selecting the preset data, press the PRESET button to set the new data.
(The preset data in the key section of the display stops flashing, remaining lit.)
Repeat the same procedure to change the data of other preset items.

• Press the CD 1 (or CD 2) button while pressing the PRESET button or the CD 1 (or CD 2) to exit the preset mode.
(The track, tune and key sections of the display switch to their normal displays.)
The preset data is now changed.
Preset data changing can also be exited by pressing the PLAY/PAUSE, CUE or OPEN/CLOSE button

13 FADER INPUT

Fader playback is possible by connecting a console fader to the fader input plug.

Figure 38

• Playback starts when the switch is turned on.
• The pause mode is set when the switch is turned off.
(FADER INPUT LEVEL HCMOS (I = −3mA))
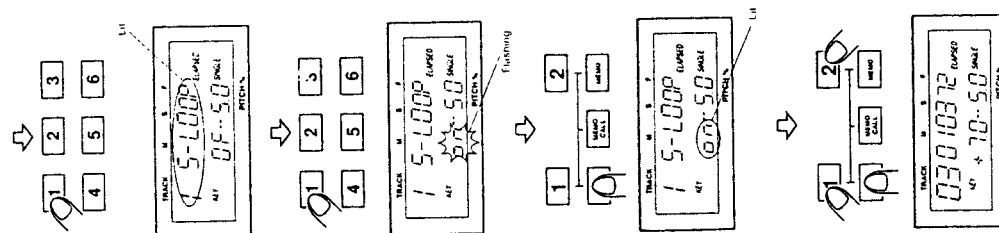
14 BEFORE SWITCHING OFF THE POWER

When you have finished using the CD player, before switching off the power, be sure that the disc holder has been closed with the OPEN/CLOSE button.

CAUTION:
Do not forcibly close the disc holder when the power is off.
It may damage the unit when it is transported.
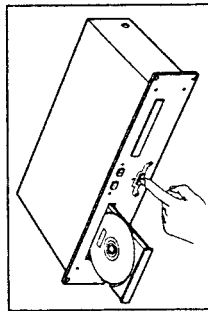
Do not switch off the power when the disc holder is open.
POWER OFF
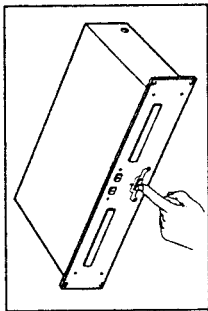
Switch off the power after the disc holder has been closed with the OPEN/CLOSE button.
POWER OFF

Figure 39

15 COMPACT DISCS

1. **Precautions on handling compact discs**
    *   Do not allow fingerprints, oil or dust to get on the surface of the disc.
        If the disc is dirty, wipe it off with a soft dry cloth.
        We recommend using DENON's AMC-22 CD CLEANER.
    *   Do not use benzene, thinner, water, record spray, electrostatic-proof chemicals, or silicone-treated cloths to clean discs.
    *   Always handle discs carefully to prevent damaging the surface; in particular when removing a disc from its case or returning it.
    *   Do not bend the disc.
    *   Do not apply heat.
    *   Do not enlarge the hole in the center of the disc.
    *   Do not write on the label (printed side) with a hardtipped implement such as a pencil or ball point pen.
    *   Condensation will form if a disc is brought into a warm area from a colder one, such as outdoors in winter. Do not attempt to dry the disc with a hair dryer, etc.

2. **Precaution on storage**
    *   After playing a disc, always unload it from the player.
    *   Always store the disc in the jewel case to protect from dirt or damage.
    *   Do not place discs in the following areas:
        1) Areas exposed to direct sunlight for a considerable time
        2) Areas subject to accumulation of dust or high humidity
        3) Areas affected by heat from indoor heaters, etc.

16 SPECIFICATIONS

GENERAL

Type:	Twin mechanism compact disc player with wired controller
Disc type:	Standard compact discs (12 cm and 8 cm discs)
Dimensions:	Player unit: 482 (W) x 88(H) x 252 (D) mm (without feet)
	19" (W) x 3-15/32 (H) x 9-59/64 (D)
	Control unit: 482 (W) x 132(H) x 40 (D) mm (without feet)
	19" (W) x 5-13/64 (H) x 1-37/64 (D)
Installation:	19-inch rack mountable
	Player unit: 2U
	Control unit: 3U
Weight:	Player unit: 6 kg (13.23 lbs.)
	Control unit: 3 kg (6.614 lbs.)
Power supply:	U.S. and Canadian models: 120 V AC ±10%, 60 Hz
	European models: 230 V AC ±10%, 50 Hz
Power consumption:	27 W
Environmental conditions:	Operational temperature: 5 to 35°C (41 to 95°F)
	Operational humidity: 25 to 85% (no condensation)
	Storage temperature: -20 to 60°C (4 to 140°F)
Accessories:	Connecting cord (2 pairs for left and right channels)
	Control cord (5m, 15 feet)

AUDIO SECTION

Quantization:	18-bit linear per channel
Sampling frequency:	44.1 kHz at normal pitch
Oversampling rate:	8 times
Frequency response:	20 to 20,000 Hz
Total harmonic distortion:	0.006%
Signal to noise ratio:	98 dB
Dynamic range:	98 dB
Channel separation:	96 dB
Output level:	2.0 V
Load impedance:	10 kΩ/kohms or more

FUNCTIONS

Instant start:	Within 10 msec
Variable pitch:	4% range: ±4% or more
	8% range: ±8% or more
	16% range: ±16% or more
Pitch bend:	4% and 8% ranges: ±12% or more
	16% range: ±18% or more
Sampling length:	8.19 sec.
Max. scan speed:	Over 20 times normal speed
Max. memory steps:	200 steps

* Specifications and design are subject to change without notice for purpose of improvement.

DISASSEMBLY

● TOP COVER

1. Remove 4 screws (108) on both sides, and 2 screws (101) .
2. Pull up Top Cover.
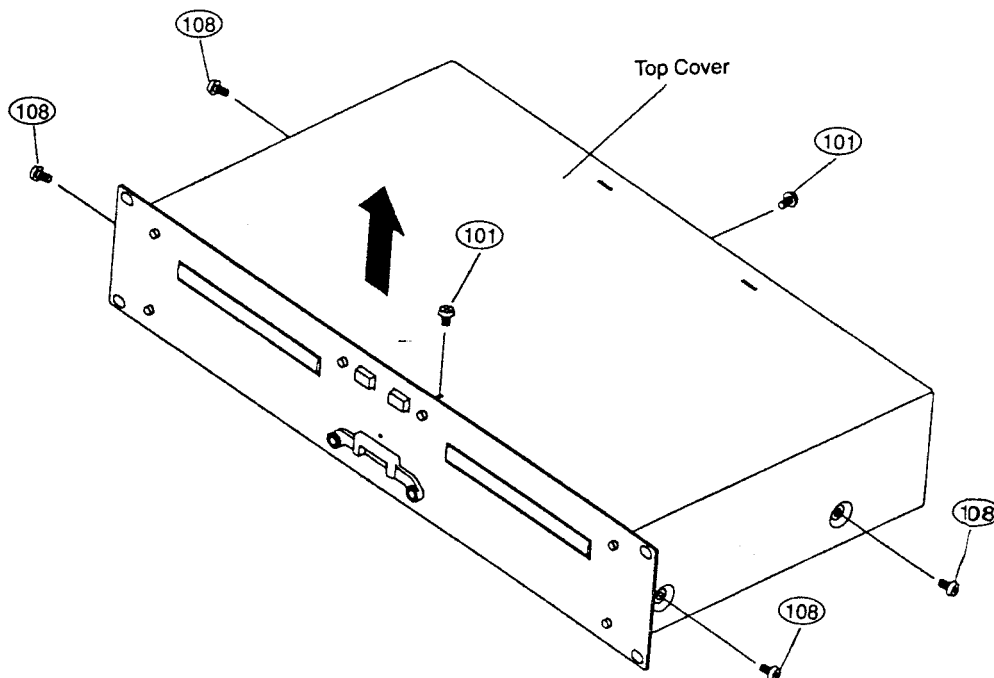
● Front Panel

1. Remove 2 upper screws (101) and 3 lower screws (101) ,
   and 2 screws (101) on both sides.
2. Detach Front Panel.

Front Panel
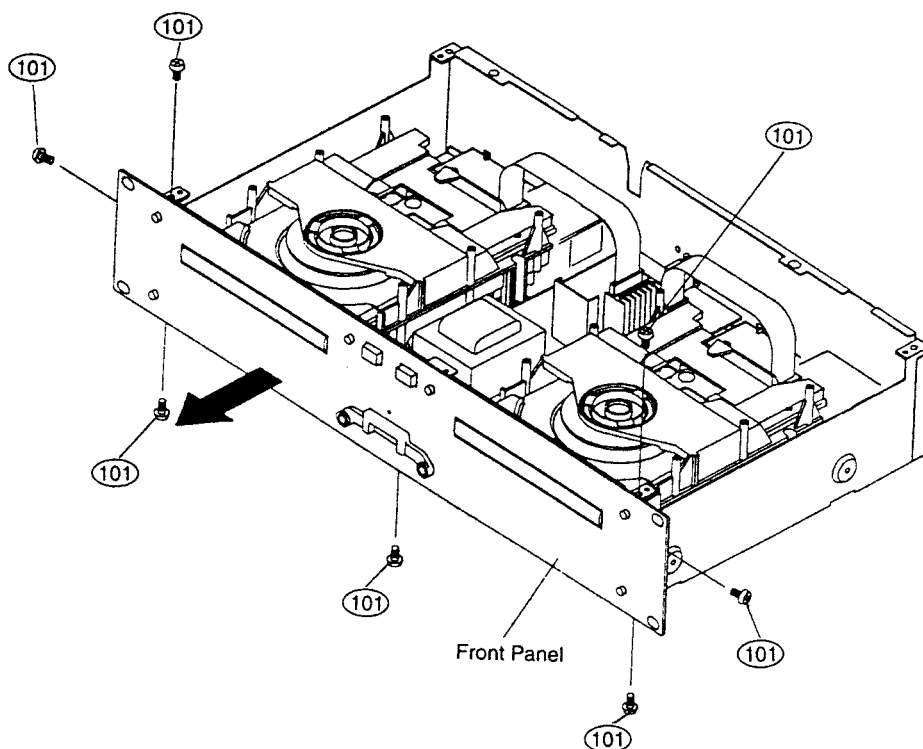
● MECHANISM UNIT

1. Disconnect FFC cable.
2. Remove 4 screws (109) and 2 screws (104).

Note : ● Do not pull out aslant to prevent FFC cable damage.
   ● Do not fail to pull AC cord from wall outlet before disconnect the FFC cable .
   If AC cord is remained plugged into wall outlet, power is kept supplied in the unit, which may cause danger.

FCC cable

MECHA. Unit
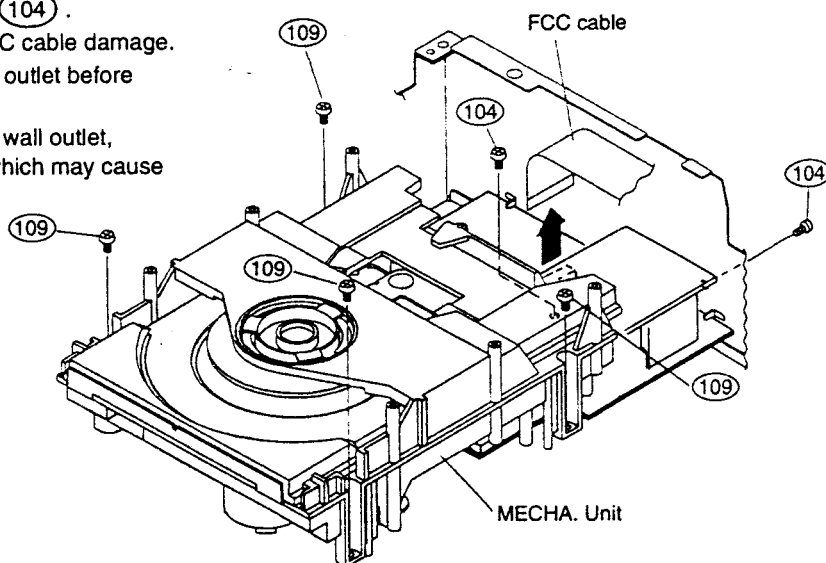
● MECHA. PWB

1. Remove 3 screws (109).
2. Disconnect Connector.
3. Detach MECHA. PWB.

MECHA. P.W.B.

Connector

Connector
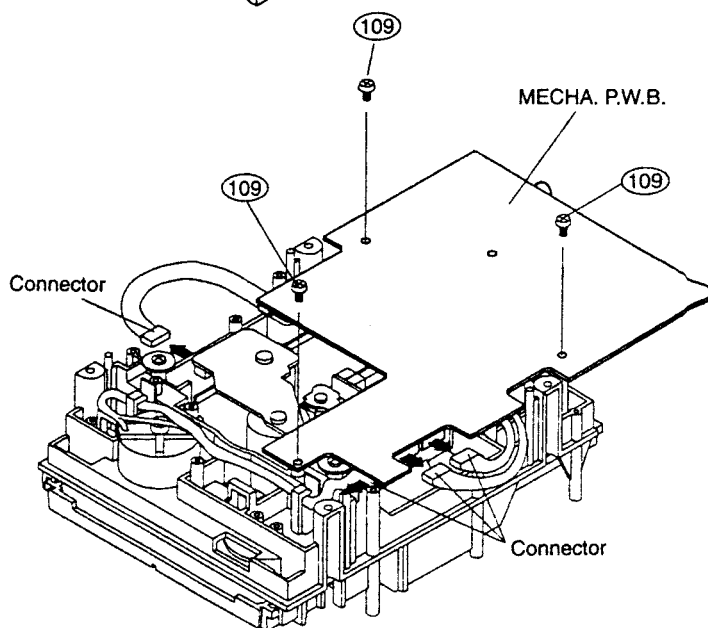
● COVER (REMOTE CONTROL UNIT)

1. Remove 5 screws (1 (103) and 4 (101)).

Remote Control Unit
(RC-44)
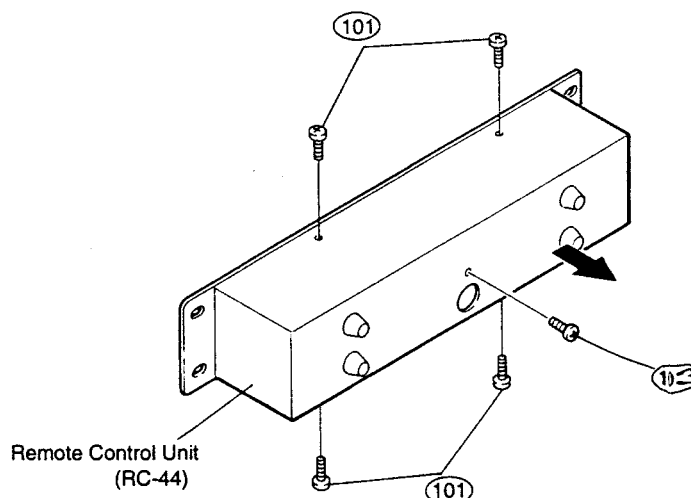
CONFIRMING THE SERVO

Required Measuring Implement
1. Dual trace oscilloscope
2. Reference disc (CA1094)

1. Actuating the Service Program and Servo Confirming Method
1. Turn the power switch off.
2. While simultaneously pushing the center blue buttons (1,2) of remote control (RC-44), turn the power on.
3. Displayed indication on the remote control (RC-44) is version number of microcomputer program.
   4 figures on the left are program version of remote control, and 4 figures on the right are program version of main body mechanism.

TRACK   M   S   F

Program Version of   Program Version of
Remote Control (RC-44)   Main Body Mechanism
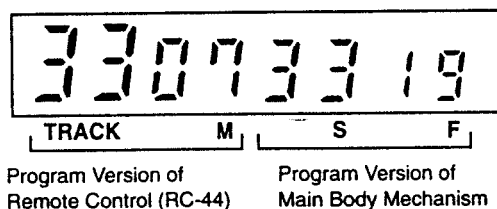
4. Press TRACK button [▶▶|] once. Display shows "$0 1$" and each pressing of PLAY button opens or closes the tray.
5. As the tray opens, set the adjustment disc (CA-1094).
6. Press TRACK button [▶▶|] ("02" is displayed), also, press PLAY button.
   Tracking error signal can be observed with the connection below. (Fig1)
7. Press TRACK button [▶▶|] ("03" is displayed), also, press PLAY button.
   HF signal can be observed with the connection below. (Fig2)
8. Press TRACK button [▶▶|] ("04" is displayed), also, press PLAY button.
   By pressing SEARCH button [▶▶] servo automatic adjustment value can be called. (Ref. Table below)
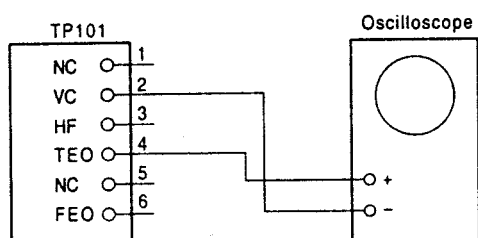
Fig1
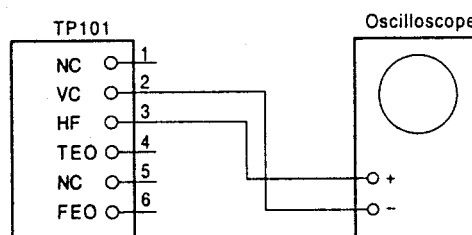
Fig2

TRACK Portion Indication	Adjustment Item	Adjustment Value indication at M and S portions.	Adjustment Item No. indication at F portion.
	Error Code	—	00
	Focus Gain (FG)	73 ~ 382	01
	Focus Balance (FBAL)	−100 ~ 100	02
04	Focus Offset (FOFS)	−35 ~ 35	03
	Tracking Gain (TG)	53 ~ 336	04
	Tracking Balance (TBAL)	−110 ~ 86	05
	Tracking Offset (TOFS)	−15 ~ 15	06

* When adjustment range exceeds, replace pick-up.

2. What is Service Program

Service program is a special program intended for confirming servo.

3. Contents of Service Program.

After actuating the service program, select an aiming process number with the TRACK ([◄◄] [►►]) buttons, TIME button, and PITCH button, and push the PLAY button to execute processing, The process number is then displayed on the TRACK indication portion.

TRACK BUTTONS	Work No. (TRACK Indication)	Function	Contents
[◄◄][►►]	01	OPEN/CLOSE	Performs OPEN/CLOSE each time the PLAY button is pushed.
	02	Tracking Error	Checks tracking error signal.
	03	HF Signal	Checks HF signal.
	04	Automatic Adjustment call	Push tray to open automatically, press SEARCH button to call servo adjustment value.
	05	Cleaning of Pick-up Lens	Tray open and pick-up, moves out of mechanism and cleaning the lens.
	06	Focus Gain Changing	Select Gain with SEARCH ([◄◄] [►►]) button. When operating SEARCH ([◄◄] [►►]) button, minute and second indicator are blinked. Press [PLAY] or [CUE] button, the display lights that will be newly memory in EEPROM. When select data becomes big or small, the Gain is up or down. In normally, do not change the data that is setted by 750.0.
	07	Tracking Gain Changing	Select Gain with SEARCH ([◄◄] [►►]) button. When operating SEARCH ([◄◄] [►►]) button, minute and second indicator are blinked. Press [PLAY] or [CUE] button, the display lights that will be newly memory in EEPROM. When select data becomes big or small, the Gain is up or down. In normally, do not change the data that is setted by 1000.0. When sound out is occured by oscillation, please raise gain. But there is sound out easily by defective disc.
TIME	0A	CHUCKING Test	Repeats OPEN/CLOSE of tray, servo ON, and TOC read.
PITCH	0B	Heat Run (No Skip Check)	Repeats OPEN/CLOSE of tray, repeats playing the first and the last programs of music on the disc. When an error occurs, displays error code and stops.

Error Code Table (Appears only at Heat Run functon)

Error Code at TRACK portion	Contents No. at M portion	Contents
E1	00	Automatic Adjustment Error
	01	Unable to detect disc
	02	Unable to adjust tracking offset
	03	Unable to adjust focus offset
	04	Unable to adjust focus fine gain
	05	Unable to actuate focus
	06	Unable to actuate tracking
	07	Unable to adjust tracking fine gain
	08	Unable to adjust EF balance
		Unable to adjust focus balance
E2	00	Servo down during playback
	01	Not read subcode
E3		Unable to read TOC
E4		Loader error
E5		Slide error

Detailed error can be displayed by pushing TRACK button [◄◄] [►►] when error occurs.

LCD Error indication			
TR	MIN	SEC	FRAM
Error Code	Contents No.	Accumulated number of open/close function of the tray prior to Error occures.	
Indication state when error occurs			
01	FG data		01
02	FBAL data		02
03	FOFS data		03
04	TG data		04
05	TBAL data		05
06	TOFS data		06

IC TERMINAL FUNCTION LIST

AN8805S (IC102) (Mecha unit)
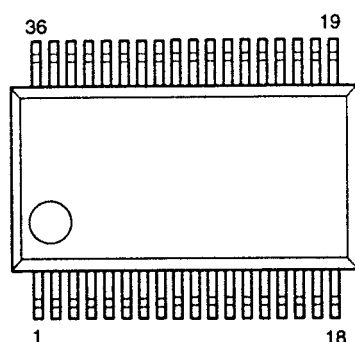
AN8805S Terminal Function

Pin No.	Symbol	I/O	Function
1	PD	I	Inputs PD signal for output monitor of LD.
2	LD	O	Connet to external transistor's base for LD drive.
3	LDON	I	Shifts LD APC ON/OFF.
4	C.CRS	—	Capacitor connecting terminal for CROSS.
5	VCC	—	Power supply connecting terminal.
6	RF–	I	RF AMP reversal input terminal. Connect a resistor.
7	RFOUT	O	RF AMP output terminal (reversal AMP).
8	RFIN	I	Input terminal of RF AGC.
9	C. AGC	—	Capacitor connecting terminal for RF AGC loop filter.
10	ARF	O	RF output terminal of after AGC.
11	C. ENV	—	Capacitor connecting terminal for RF.
12	C. EA	—	Capacitor connecting terminal for AMP.
13	C. SBDO	—	Capacitor connecting terminal for low speed detection of dark level DO detection.
14	BDO	O	BDO detection output terminal. Positive logic.
15	C. SBRT	—	Capacitor connecting terminal for low speed detection of OFTR detection.
16	OFTR	O	Output terminal of OFF TRACK detection. Positive logic.
17	NRFDET	O	Output terminal of RF signal amplitude detection. Negative logic.
18	GND	—	GND.
19	ENV	O	ENV output terminal.
20	VREF	O	VCC x 0.5(V) output terminal.
21	LD OFF	I	Input terminal of LD APC forcible stop.
22	VDET	O	Output terminal of vibration detection.
23	TEBPF	I	Input terminal of vibration detection.
24	CROSS	O	Output terminal of TE CROSS detection signal.
25	TEOUT	O	Output terminal of TEAMP.
26	TE–	I	TEAMP reversal input terminal. Connect a resistor.
27	FEOUT	O	Output terminal of FEAMP.
28	FE–	I	FEAMP reversal input terminal. Connect a resistor.
29	FBAL	I	Control signal input terminal of FO balance adjustment.
30	TBAL	I	Control signal input terminal of TE balance adjustment.
31	PDFR	—	Resistor connecting terminal for setting IV converting resistance value of PDE.
32	PDER	—	Resistor connecting terminal for setting IV converting resistance value of PDF.
33	PDE	I	Connect to PIN diode E.
34	PDF	I	Connect to PIN diode F.
35	PDBD	I	Connect to B,D of astigmatism 1/4 divided PD.
36	PDAC	I	Connect to A,C of astigmatism 1/4 divided PD.

MN662720 (Mecha unit)
(IC101)
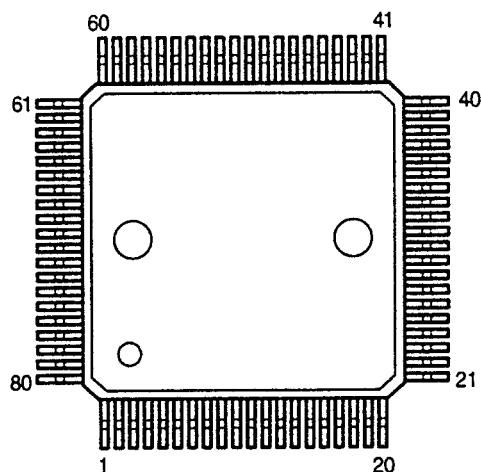
MN662720 Terminal Function

Pin No.	Symbol	I/O	Function
1	BCLK	O	Bit clock output for SRDATA.
2	LRCK	O	L,R discrimination signal output.
3	SRDATA	O	Serial data output.
4	DVDD1	I	Power supply for digital circuit.
5	DVSS1	I	GND for digital circuit.
6	TX	O	Digital audio interface output signal.
7	MCLK	I	Microcomputer command clock signal input (latches data at rising edge).
8	MDATA	I	Microcomputer command data input.
9	MLD	I	Microcomputer command load signal input. ("L": load)
10	SENSE	O	Sens signal output (OFT, FESL, NACEND, NAJEND, POSAD, SFG).
11	FLOCK	O	Focus servo draw in signal ("L": draw in state).
12	TLOCK	O	Tracking servo draw in signal ("L": draw in state).
13	BLKCK	O	Subcode block clock signal (fGLKCK=75Hz).
14	SQCK	I	External clock input for subcode Q register.
15	SUBQ	O	Subcode Q code output.
16	DMUTE	I	Muting input ("H": mute).
17	STAT	O	Status signal (CRC, CUE, CLVS, TTSTOP, FCLV, SQOK).
18	RST	I	Reset input ("L": reset).
19	SMCK	O	8.4672MHz clock signal output at MSEL="H". 4.2336MHz clock signal output at MSEL="L".
20	PMCK	O	88.2kHz clock output.
21	TRV	O	Traverse forcible sending output.
22	TVD	O	Traverse drive output.
23	PC	O	Spindle motor ON signal ("L": ON).
24	ECM	O	Spindle motor drive signal (forcible mode output). 3-state.
25	ECS	O	Spindle motor drive signal (servo error signal output).
26	KICK	O	Kick pulse output.
27	TRD	O	Tracking drive output.
28	FOD	O	Focus drive output.
29	VREF	I	Reference voltage for DA output portion (TVD,BCS,TRD,FOD,FBAL,TBAL).
30	FBAL	O	Focus balance adjusting output.

22

Pin No.	Symbol	I/O	Function
31	TBAL	O	Tracking balance adjusting output.
32	FE	I	Focus error signal input (analog input).
33	TE	I	Tracking error signal input (analog input).
34	RFENV	I	RF envelope signal input (analog input).
35	VDET	I	Vibration detecting signal input ("H": detect).
36	OFT	I	Off track signal input ("H": off track).
37	TRCRS	I	Track cross signal input.
38	RFDET	I	RF detecting signal input ("L": detect).
39	BDO	I	Drop out signal input ("H": drop out).
40	LDON	O	Laser ON signal output ("H": ON).
41	TES	O	Tracking error shunt signal output ("H": shunt).
42	PLAY	O	Play signal output ("H": play).
43	WVEL	O	Double speed status signal output.
44	ARF	I	RF signal input.
45	IREF	I	Reference current input terminal.
46	DRF	I	Bias terminal for DSL.
47	DSLF	I/O	Loop filter terminal for DSL.
48	PLLF	I/O	Loop filter sterminal for PLL.
49	VCOF	I/O	Loop filter terminal for VCO.
50	AVDD2	I	Power supply for analog circuit (for DSL, PLL, DA output sections).
51	AVSS2	I	GND for analog circuit (for DSL, PLL, DA output sections).
52	EFM	O	EFM signal output.
53	PCK	O	PLL extract clock output (fPCK=4.321MHz).
54	PDO	O	Phase comparing signal output of EFM signal and PCK signal.
55	SUBC	O	Subcode serial output data output.
56	SBCK	I	Clock input for subcode serial output.
57	VSS	I	GND for osc. circuit.
58	X1	I	X'tal osc. circuit input terminal. f=16.9344MHz or 33.8688MHz.
59	X2	O	X'tal osc. circuit output terminal (use 33.8688MHz at double speed PB).
60	VDD	I	Power supply for osc. circuit.
61	BYTCK	O	Byte clock output.
62	CLDCK	O	Subcode frame clock signal output (fCLDCK=7.35kHz).
63	FCLK	O	X'tal frame clock output (fFCLK=7.35kHz).
64	IPFLAG	O	Interpolation flag output ("H": interpolation).
65	FLAG	O	Flag output.
66	CLVS	O	Spindle servo phase sync state signal output ("H":CLV, "L":rough servo).
67	CRC	O	Subcode CRC check result output ("H":OK, "L":NG).
68	DEMPH	O	Deemphasis detecting signal output ("H":ON).
69	RESY	O	Flag 6 output at SSEL:"H"(RAM address reset generating signal by Jitter margin over of CLV servo. "L":address reset generates). RESY output at SSBL:"L"(Re-sync signal output of frame sync. "H": sync, "L": out sync).
70	NC1	NC	Non connection terminal (not connected internally).
71	TEST	I	Test terminal (normally "H").
72	AVDD1	I	Power supply for digital circuit.
73	NC2	NC	Non connection terminal(not connected internally).
74	AVSS1	I	GND for digital circuit.
75	NC3	NC	Non connection terminal (not connected internally).
76	RSEL	I	RF signal polarity specify terminal (RSEL="H" at brightness level "H". RSEL="L" at brightness level "L").
77	CSEL	I	X'tal osc. frequency specify terminal, X'tal osc. freq. 33.8688MHz:CSEL"H", 16.9344MHz:CSEL"L".
78	PSEL	I	Test terminal (normally "L").
79	MSEL	I	SMCK terminal. Output frequency shifting terminal ("H":SMCK=8.4672MHz, "L":SMCK=4.2336MHz).
80	SSEL	I	Sub Q teminal. Output mode shifting terminal ("H":Q code buffer using mode).

μPD784021GC-3B9 (Mecha Unit)
(IC201)
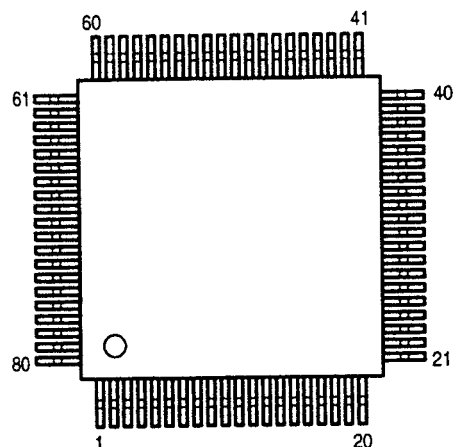
μPD784021GC-3B9 Terminal Function

Pin No.	Terminal Name	Symbol	I/O	Reset	Initial	Active	Function
1	P32/SCK	SCL	O	Z	H	—	Serial communication data output to MN19412A, MN19413.
2	P33/S00/SBO	SDA	O	Z	H	—	Serial communication clock output to MN19412A, MN19413.
3	P34/TO0	VCOCK	O	Z	H	—	44.1 kHz clock output to MN19413.
4	P35/TO1	MLE	O	Z	H	—	SM5841BS command latch.
5	P36/TO2	CLK	O	Z	H	—	Clock for MN662720, SM5841BS command output.
6	P37/TO3	MDATA	O	Z	H	—	MN662720, SM5841BS command data.
7	RESET	RESET	I	L	—	L	Reset signal input (reset at "L").
8	VDD	VDD	—				Microcomputer power supply (+5V).
9	X2	X2	—				Open.
10	X1	X1	I				System clock input (24.57 MHz).
11	Vss	Vss	—				Microcomputer GND.
12	PO0	DMUTE	O	Z	L	H	MN662720 digital mute.
13	PO1	MLD	O	Z	H	L	MN662720 command latch.
14	PO2	SENSE	I	Z	—	—	MN662720 servo state input signal.
15	PO3	FLOCK	I	Z	—	L	MN662720 focus servo Lead-in signal.
16	PO4	TLOCK	I	Z	—	L	MN662720 tracking servo Lead-in signal.
17	PO5	SQCK	O	Z	H	—	MN662720 subcode Q register reading clock.
18	PO6	SUBQ	I	Z	—	—	MN662720 subcode Q input.
19	PO7	STAT	I	Z	—	—	MN662720 status signal.
20	P67/REFRQ/HLDAK	RST	O	L	L	L	MN662720, AN8805 reset signal.
21	P66/WAIT/HLDRQ	RST-D	O	Z	L	L	SM5841BS, MN19413, MN19412A reset signal.
22	P65/WR	—	O	Z	—	—	Not used (open).
23	P64/RD	—	O	Z	—	—	Not used (open).
24	P63/A19	—	O	Z	L	—	Not used (open).
25	P62/A18	—	O	Z	L	—	Not used (open).
26	P61/A17	—	O	Z	L	—	Not used (open),
27	P60/A16	—	O	Z	L	—	Not used (open).
28	P57/A15	A15					Address bus.
29	P56/A14	A14					Address bus.

Pin No.	Terminal Name	Symbol	I/O	Reset	Initial	Active	Function
30	P55/A13	A13					Address bus.
31	P54/A12	A12					Address bus.
32	P53/A11	A11					Address bus.
33	P52/A10	A10					Address bus.
34	P51/A9	A9					Address bus.
35	P50/A8	A8					Address bus.
36	P47/AD7	AD7					Address/data bus.
37	P46/AD6	AD6					Address/data bus.
38	P45/AD5	AD5					Address/data bus.
39	P44/AD4	AD4					Address/data bus.
40	P43/AD3	AD3					Address/data bus.
41	P42/AD2	AD2					Address/data bus.
42	P41/AD1	AD1					Address/data bus.
43	P40/AD0	AD0					Address/data bus.
44	ASTB/CLKOUT	ASTB					Address strobe terminal (address bus effective at "L").
45	Vss	Vss					GND.
46	TEST	—					Connect to 0V.
47	P10/PWM0	PO0	I	Z	—	—	Status data input 0 of MN19413.
48	P11/PWM1	PO1	I	Z	—	—	Status data input 1 of MN19413.
49	P12/ASCK2/SCK2	PO3	O	Z	L	H	MN19412 port command output permitting signal.
50	P13/RxD2/SI2	—	—	Z	—	—	Not used (open).
51	P14/TxD2/SO2	—	—	Z	—	—	Not used (open).
52	P15	TXDEN	O	Z	H	L	IC enable signal for M5M3045 serial communication.
53	P16	P10	I	Z	—	—	Status data input 0 of MN19412A.
54	P17	P11	I	Z	—	—	Status data input 1 of MN19412A.
55	VDD	VDD	—				Microcomputer power supply (+5V).
56	P70/ANI0	ADDRO	O	Z	L	—	Address designated signal for MN19412A command output.
57	P71/ANI1	OPEN	O	L	L	—	Tray OPEN switch ON.
58	P72/ANI2	CLOSE	O	L	L	—	Tray CLOSE switch ON.
59	P73/ANI3	LDOUT	I	Z	—	L	Tray OPEN detection switch input.
60	P74/ANI4	LDIN	I	Z	—	L	Tray CLOSE detection switch input.
61	P75/ANI5	AMUTE	O	L	L	L	Analog mute.
62	P76/ANI6	STIN1	I	Z	—	L	RC44 communication status input.
63	P77/ANI7	CDSEL	I	Z	—	—	Microcomputer ID (0: CD1, 1: CD2).
64	AVDD	AVDD					A/D converter power supply (+5V).
65	AVref1	AVref1					A/D converter reference voltage (+5V).
66	AVss	AVss	—				GND for A/D converter (0V).
67	ANO0	STOUT	O	OV	H	—	RC44 communication status output.
68	ANO1	—	O	OV	H	—	Not used (open).
69	AVref2	AVref2					Connect to 5V.
70	AVref3	AVref3					A/D converter reference voltage input (+side) (+5V).
71	P20/NMI	—	I	Z	—	—	A/D converter reference voltage input (–side) (0V).
72	P21/INTP0	EJSW	I	Z	—	L	Eject switch input.
73	P22/INTP1	INSW	I	Z	—	L	Slide inner switch input.
74	P23/INTP2/CI	BLKCK	I	Z	—	L	Subcode block clock input.
75	P24/INTP3	FCLK	I	Z	—	L	Frame count clock input.
76	P25/INTP4/ASCK/SCK1	FADE	I	Z	—	—	Fader input. ↓ Starts playback, ↑ Pause.
77	P26/INTP5	—	I	Z	—	—	Not used (connect to 0V).
78	P27/SIO	—	I	Z	—	—	Not used (connect to 0V).
79	P30/RxD/SI1	RXD	I	Z	—	—	Serial communication data input from remote control.
80	P31/TxD/SO1	TXD	O	Z	—	—	Serial communication data output to remote control.

25

AN8389 (IC103) (Mecha unit)
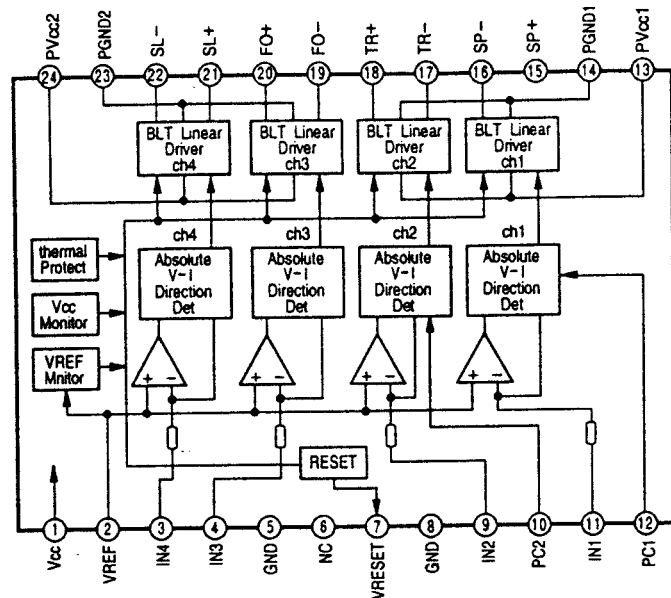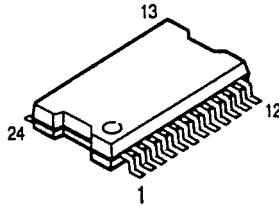
AN8389 Terminal Function

Pin No.	Symbol	I/O	Function
1	ACC	—	Power supply.
2	VREF	I	VREF input terminal.
3	IN4	I	Motor driver 4 input terminal.
4	IN3	I	Motor driver 3 input terminal.
5	GND	—	GND.
6	NC	—	
7	NRESET	O	Reset output terminal.
8	GND	—	GND.
9	IN2	I	Motor driver 2 input terminal.
10	PC2	I	PC2 (power cut) input terminal.
11	IN1	I	Motor driver 1 input terminal.
12	PC1	I	PC1 (power cut) input terminal.
13	PVCC1	—	Power supply terminal1 for driver.
14	PGND1	—	GND terminal1 for driver.
15	SP+	O	Motor driver 1 reversal output terminal, spindle motor drive.
16	SP–	O	Motor driver 1 obverse output terminal, spindle motor drive.
17	TR–	O	Motor driver 2 reversal output terminal.
18	TR+	O	Motor driver 2 obverse output terminal.
19	FO–	O	Motor driver 3 reversal output terminal.
20	FO+	O	Motor driver 3 obverse output terminal.
21	SL+	O	Motor driver 4 reversal output terminal, slide motor drive.
22	SL–	O	Motor driver 4 obverse output terminal, slide motor drive.
23	PGND2	—	GND terminal 2 for driver.
24	PVCC2	—	Power supply terminal2 for driver.

MN41440CSJ-07 (Mecha unit)
(IC304,305)
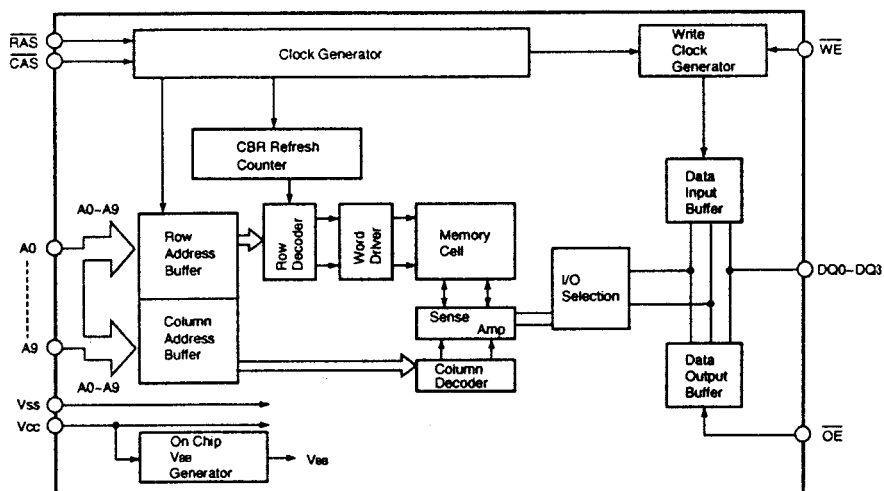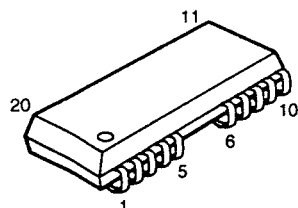
MN41440CSJ-07 Terminal Function

Pin No.	Symbol	I/O	Function
1	DQ0	I/O	Data input/output.
2	DQ1	I/O	Data input/output.
3	WE	I	Write enable input.
4	RAS	I	Row address strobe.
5	A9	I	Address input.
6	A0	I	Address input.
7	A1	I	Address input.
8	A2	I	Address input.
9	A3	I	Address input.
10	Vcc	—	Power supply (+5V).
11	A4	I	Address input.
12	A5	I	Address input.
13	A6	I	Address input.
14	A7	I	Address input.
15	A8	I	Address input.
16	OE	I	Output enable input.
17	CAS	I	Column address strobe.
18	DQ2	I/O	Data input/output.
19	DQ3	I/O	Data input/output.
20	Vss	—	Power supply (0V).

MN19412A (Mecha Unit)
(IC301)
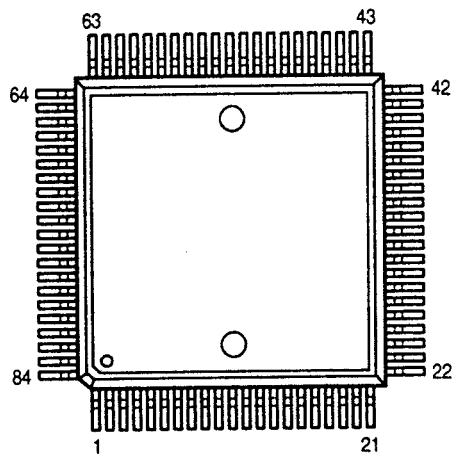
MN19412A Terminal Function

Pin No.	Symbol	I/O/T	Function
1	N.C.	—	Non connection.
2	SOEN2	I	Output enable for serial output 2.
3	SCKO2	I	Serial clock for serial output 2.
4	SDO3	O/T	Data for serial output 3.
5	WSO3	I	Word select for serial output 3.
6	SCKO3	I	Serial clock for serial output 3.
7	SOEN3	I	Output enable for serial output 3.
8	Vss	—	GND terminal (0V).
9	Vss	—	GND terminal (0V).
10	XCAS	O	Column address strobe for external DRAM. Open when not used.
11	XOE	O	Output enable for external RAM.
12	A14	O	Address 14 for external RAM.
13	A13	O	Address 13 for external RAM.
14	A12	O	Address 12 for external RAM.
15	A11	O	Address 11 for external RAM.
16	A10	O	Address 10 for external RAM.
17	A9	O	Address 9 for external RAM.
18	A8	O	Address 8 for external RAM.
19	A7	O	Address 7 for external RAM.
20	A6	O	Address 6 for external RAM.
21	N.C.	—	Non connection.
22	A5	O	Address 5 for external RAM.
23	A4	O	Address 4 for external RAM.
24	A3	O	Address 3 for external RAM.
25	A2	O	Address 2 for external RAM.
26	A1	O	Address 1 for external RAM.
27	A0	O	Address 0 for external RAM.
28	XCE2	O	Chip enable 2 for external SRAM.
29	XCE1	O	Chip enable 1 for external SRAM.
30	XRAS	O	Row address strobe for external DRAM. Open when not used.

Pin No.	Symbol	I/O/T	Function
31	XWE	O	Write enable for external RAM.
32	VSS	—	GND terminal (0V).
33	VSS	—	GND terminal (0V).
34	D7	I/O	Data 7 for external RAM (Connect to D4~7 when one DRAM is used).
35	D6	I/O	Data 6 for external RAM.
36	D5	I/O	Data 5 for external RAM.
37	D4	I/O	Data 4 for external RAM.
38	D3	I/O	Data 3 for external RAM.
39	D2	I/O	Data 2 for external RAM.
40	D1	I/O	Data 1 for external RAM.
41	D0	I/O	Data 0 for external RAM.
42	P7	I/O/T	General purpose port 7.
43	P6	I/O/T	General purpose port 6.
44	P5	I/O/T	General purpose port 5.
45	P4	I/O/T	General purpose port 4.
46	P3	I/O/T	General purpose port 3.
47	P2	I/O/T	General purpose port 2.
48	P1/PT1	I/O/T	General purpose port 1/Flag 1 for condition dividing.
49	P0/PT0	I/O/T	General purpose port 0/Flag 0 for condition dividing.
50	N.C.	—	Non connection.
51	SYNC	I	Input for program sync (condition input).
52	V_{DD}	—	Power supply terminal.
53	INT0	I	Interrupt input 0.
54	INT1	I	Interrupt input 1.
55	XRESET	I	System reset input.
56	Vss	—	GND terminal (0V).
57	CLKI	I	System clock input.
58	CLKO	O	System clock output.
59	V_{DD}	—	Power supply terminal.
60	V_{DD}	—	Power supply terminal.
61	ADDR0	I	Address select 0 for IIC bus.
62	ADDR1	I	Address select 1 for IIC bus.
63	XCE	I	Chip enable for IIC bus.
64	IICSEL	I	IIC/IC switching for IIC bus.
65	XTRANS	I	Data transfer control for IIC bus.
66	SDA	I/O	Serial data for IIC bus.
67	SCL	I/O	Serial clock for IIC bus.
68	MATCH	O	Address match at coefficient input for IIC bus.
69	SDI1	I	Data for serial input 1.
70	WSI1	I	Word select for serial input 1.
71	N.C.	—	Non connection.
72	SCKI1	I	Serial clock for serial input 1.
73	SDI2	I	Data for serial input 2.
74	WSI2	I	Word select for serial input 2.
75	SCKI2	I	Serial clock for serial input 2.
76	V_{DD}	—	Power supply terminal.
77	V_{DD}	—	Power supply terminal.
78	SDO1	O/T	Data for serial output 1.
79	WSO1	I	Word select for serial output 1.
80	N.C.	—	Non connection.
81	SCKO1	I	Serial clock for serial output 1.
82	SOEN1	I	Output enable for serial output 1.
83	SDO2	O/T	Data for serial output 2.
84	WSO2	I	Word select for serial output 2.

MN19413 (Mecha Unit)
(IC303)
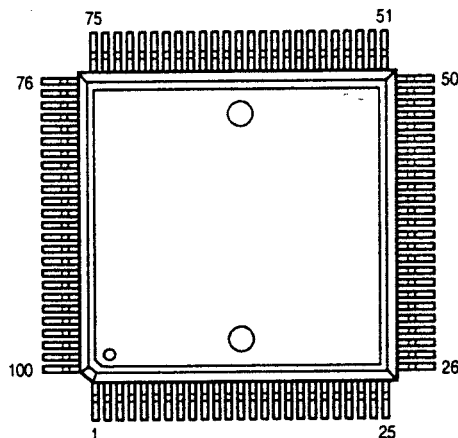
MN19413 Terminal Function

Pin No.	Symbol	I/O/T	Function
1	RP	O	D/A Rch analog output (positive).
2	RN	O	D/A Rch analog output (negative).
3	VDD	—	Digital system power supply (5V).
4	SCKI	I	Serial clock for serial input.
5	WSI	I	Word select for serial input.
6	SDI	I	Data for serial input.
7	SDO2	O	Data for serial output 2.
8	SDO1	O	Data for serial output 1.
9	WSO	O	Word select for serial output.
10	SCKO	O	Serial clock for serial output.
11	Vss	—	Digital system GND terminal (0V).
12	P3	I/O/T	General purpose port 3.
13	P2	I/O/T	General purpose port 2.
14	P1/PT1	I/O/T	General purpose port 1/Flag 1 for condition dividing.
15	P0/PT0	I/O/T	General purpose port 0/Flag 0 for condition dividing.
16	SYNC	I	Input for program sync (condition input).
17	INT1	I	Interrupt input 1.
18	INT0	I	Interrupt input 0.
19	XTEST1	I	Test input (normally 5V).
20	XRESET	I	System reset input.
21	ADDR0	I	Address select 0 for IIC bus.
22	ADDR1	I	Address select 1 for IIC bus.
23	SCL	I/O	Serial clock for IIC bus.
24	SDA	I/O	Serial data for IIC bus.
25	XCE	I	Chip enable for IIC bus.
26	MATCH	O	Address match at coefficcient input for IIC bus.
27	VDD	—	Digital system power supply (5V).
28	A16	O	Address 16 for external RAM (open when address is not used).
29	A15	O	Address 15 for external RAM.
30	A14	O	Address 14 for external RAM.
31	A13	O	Address 13 for external RAM.
32	A12	O	Address 12 for external RAM.
33	A11	O	Address 11 for external RAM.
34	A10	O	Address 10 for external RAM.
35	A9	O	Address 9 for external RAM.
36	A8	O	Address 8 for external RAM.
37	A7	O	Address 7 for external RAM.
38	A6	O	Address 6 for external RAM.
39	A5	O	Address 5 for external RAM.
40	Vss	—	Digital system GND terminal (0V).

Pin No.	Symbol	I/O/T	Function
41	A4	O	Address 4 for external RAM.
42	A3	O	Address 3 for external RAM.
43	A2	O	Address 2 for external RAM.
44	A1	O	Address 1 for external RAM.
45	A0	O	Address 0 for external RAM.
46	XRAS	O	Row address strobe for external DRAM (open when not used).
47	XCAS	O	Column address strobe for external DRAM (open when not used).
48	XWE	O	Write enable for external RAM.
49	XOE	O	Output enable for external RAM.
50	XCE2	O	Chip enable 2 for external SRAM.
51	XCE1	O	Chip enable 1 for external SRAM.
52	VDD	—	Digital system power supply (5V).
53	D7	I/O	Data 7 for external RAM (connect to D4~7 when one DRAM is used).
54	D6	I/O	Data 6 for external RAM.
55	D5	I/O	Data 5 for external RAM.
56	D4	I/O	Data 4 for external RAM.
57	D3	I/O	Data 3 for external RAM.
58	D2	I/O	Data 2 for external RAM.
59	D1	I/O	Data 1 for external RAM.
60	D0	I/O	Data 0 for external RAM.
61	Vss	—	Digital system GND terminal (0V).
62	XI2	I	System clock 2 input.
63	XO2	O	System clock 2 output.
64	TEST0	I	Test input (normally 0V).
65	XI1	I	System clock 1 input.
66	XO1	O	System clock 1 output.
67	XISEL	I	System clock selection. (O: XI2, I: XI1).
68	VDD	—	Digital system power supply (5V).
69	RX2	I/O	Digital audio signal input.
70	FL2	O	RX2 feedback signal output.
71	DIR	I	DIR selection (1: use internal DIR).
72	RX1	I/O	Digital audio signal input 1.
73	FL1	O	RX1 feedback signal output.
74	CSEL	I	A/D, D/A master clock selection (0: 256fs, 1: 384fs).
75	RXO	O	Digital audio signal output.
76	POLPD	I	PCO output polarity selection.
77	CLKI	I	VCO clock input (connect VCO output [VCOO]).
78	VDD	—	Digital system power supply (5V).
79	VCOO	O	Built-in VCO output.
80	VCOI	I	Built-in VCO input.
81	PCO	O	PLL phase compare output.
82	UNLOCK	O	PLL unlock flag output.
83	Vss	—	Digital system GND terminal (0V).
84	ZFLG	O	D/A ∞0 input detection output.
85	VREFR	—	A/D Rch reference voltage terminal (1.0V).
86	AINR	I	A/D Rch analog input terminal.
87	N.C.	—	Non connection.
88	VREFL	—	A/D Lch reference voltage terminal (1.0V).
89	VBOP	—	Built-in operation Amp. bias voltage terminal (2.5V).
90	N.C.	—	Non connection.
91	ADVDD	—	A/D analog system power supply terminal (5V).
92	ADVss	—	A/D analog system GND terminal (0V).
93	AINL	I	A/D Lch analog input terminal.
94	VGAD	—	A/D analog GND (2.5V).
95	N.C.	—	No connection.
96	VGDA	—	A/D analog GND (1.5V).
97	DAVss	—	D/A analog system GND terminal (0V).
98	DAVDD	—	D/A analog system power supply terminal (5V).
99	LP	O	D/A Lch analog output (positive).
100	LN	O	D/A Lch analog output (negative).

μPD784021GC-3B9 (Remote control Unit)
(IC301)
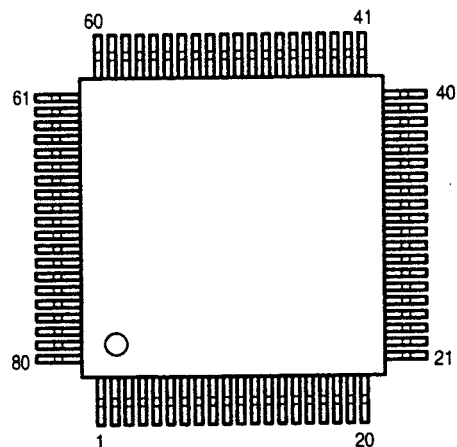
μPD784021GC-3B9 Terminal Function

Pin No.	Terminal Name	Symbol	I/O	Reset	Initial	Active	Function
1	P32/SCK	—	O	Z	H	—	Open.
2	P33/S00/SBO	—	O	Z	H	—	Open.
3	P34/TO0	INH1	O	L	L	L	Output to INH of LCD driver 1.
4	P35/TO1	LDAT1	O	Z	H	—	Output to LDAT1 of LCD driver 1.
5	P36/TO2	LCLK1	O	Z	H	—	Output to LCLK1 of LCD driver 1.
6	P37/TO3	LCE1	O	Z	H	—	Output to LCE1 of LCD driver 1.
7	RESET	RESET	I	L	—	—	Reset input.
8	VDD	VDD	—				Positive power supply (+5V).
9	X2	X2	—				Connect to system clock oscillation X' tal (open).
10	X1	X1	I				Connect to system clock oscillation X' tal (24.57 MHz).
11	Vss	Vss	—				GND (0V).
12	PO0	KO0	O	Z	H	L	Key scan output 0.
13	PO1	KO1	O	Z	H	L	Key scan output 1. LED dynamic lighting line selection output 0.
14	PO2	KO2	O	Z	H	L	Key scan output 2.
15	PO3	KO3	O	Z	H	L	Key scan output 3. LED dynamic lighting line selection output 1.
16	PO4	KO4	O	Z	H	L	Key scan output 4.
17	PO5	KO5	O	Z	H	L	Key scan output 5.
18	PO6	KO6	O	Z	H	L	Key scan output 6.
19	PO7	KO7	O	Z	H	L	Key scan output 7. LED dynamic lighting line selection output 2.
20	P67/REFRQ/HLDAK	KO8	O	Z	H	L	Key scan output 8. LED dynamic lighting line selection output 3.
21	P66/WAIT/HLDRQ	KO9	O	Z	H	L	Key scan output 9.
22	P65/WR	—	O				Connect to write enable (WE) of EEPROM.
23	P64/RD	—	O				Connect to output enable (OE) of EEPROM.
24	P63/A19	—	O	Z	L	—	Open.
25	P62/A18	—	O	Z	L	—	Open.
26	P61/A17	—	O	Z	L	—	Open.
27	P60/A16	—	O	Z	L	—	Open.
28	P57/A15	A15					Address bus.
29	P56/A14	A14					Address bus.

LC75850E (Remote control unit)
(IC101,201)
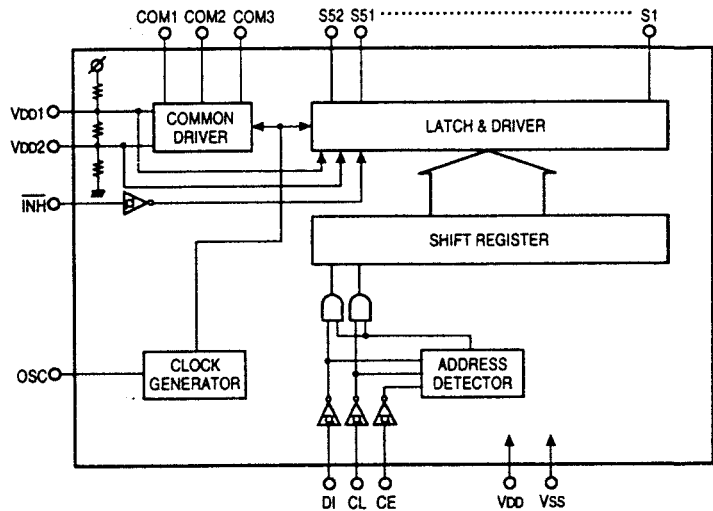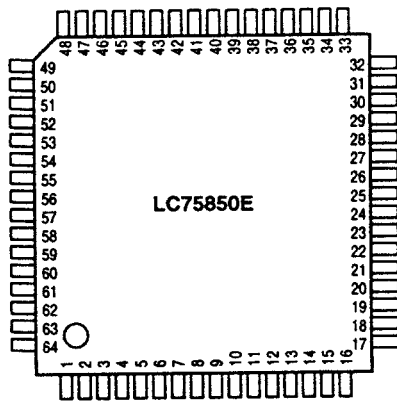
LC75850E Terminal Function

Pin No.	Port Name	I/O	Active	Function	Remark
1 � 52	S1~S52	O	—	Segment output for indication data transferred from serial data.	Open when not used.
53	COM1	O		Common driver output. Frame frequency : fo = (fosc/384)Hz	Open when not used.
54	COM2				
55	COM3				
56	VDD			Power supply (+5V)	
57	INH	I	L	Irrespective of internal data to fail indication forcibly. Serial data is feasible to input regardless to "H" or "L".	When not used, connect to GND.
58	VDD1	I	—	For applying external LCD drive bias 2/3 voltage. Connect to VDD2 at 1/2 bias.	Open when not used.
59	VDD2	I	—	For applying external LCD drive bias 1/3 voltage. Connect to VDD1 at 1/2 bias.	Open when not used.
60	Vss			GND	
61	OSC	I	—	Oscillation terminal	When not used, connect to GND.
62	CE	I	H	Transfer terminal for serial data, connect to microcomputer. CE: Chip enable CL: Sync clock DI: Transfer data	When not used, connect to GND.
63	CL	I	L→H		
64	DI	I	—		

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Pin No.	Terminal Name	Symbol	I/O	Reset	Initial	Active	Function
30	P55/A13	A13					Address bus.
31	P54/A12	A12					Address bus.
32	P53/A11	A11					Address bus.
33	P52/A10	A10					Address bus.
34	P51/A9	A9					Address bus.
35	P50/A8	A8					Address bus.
36	P47/AD7	AD7					Address/data bus.
37	P46/AD6	AD6					Address/data bus.
38	P45/AD5	AD5					Address/data bus.
39	P44/AD4	AD4					Address/data bus.
40	P43/AD3	AD3					Address/data bus.
41	P42/AD2	AD2					Address/data bus.
42	P41/AD1	AD1					Address/data bus.
43	P40/AD0	AD0					Address/data bus.
44	ASTB/CLKOUT	ASTB					Latch timing output.
45	Vss	Vss					GND (0V).
46	TEST	TEST					Terminal for IC test (connect to Vss).
47	P10/PWM0	LED0	O	Z	H	L	LED dynamic lighting control 0.
48	P11/PWM1	LED1	O	Z	H	L	LED dynamic lighting control 1.
49	P12/ASCK2/SCK2	LED2	O	Z	H	L	LED dynamic lighting control 2.
50	P13/RxD2/SI2	—	O	Z	H	—	Open.
51	P14/TxD2/SO2	—	O	Z	H	—	Open.
52	P15	LED3	O	Z	H	L	LED dynamic lighting control 3.
53	P16	LED4	O	Z	H	L	LED dynamic lighting control 4.
54	P17	—	O	Z	H	—	Open.
55	VDD	VDD					Positive power supply (+5V).
56	P70/ANI0	VR10	I	—	—	—	Slide volume 1 reference voltage input.
57	P71/ANI1	VR11	I	—	—	—	Slide volume 1 input.
58	P72/ANI2	VR20	I	—	—	—	Slide volume 2 reference voltage input.
59	P73/ANI3	VR21	I	—	—	—	Slide volume 2 input.
60	P74/ANI4	INH2	O	L	L	L	Output to INH of LCD driver 2.
61	P75/ANI5	LDAT2	O	Z	H	—	Output to LDAT 2 of LCD driver 2.
62	P76/ANI6	LCLK2	O	Z	H	—	Output to LCLK 2 of LCD driver 2.
63	P77/ANI7	LCE2	O	Z	H	—	Output to LCE 2 of LCD driver 2.
64	AVDD	AVDD					Positive power supply for A/D converter (+5V).
65	AVRref	AVREF1					A/D converter reference voltage (+5V).
66	AVss	AVss					GND for A/D converter (0V).
67	ANO0	ANO0	O	0V	L	—	Open.
68	ANO1	ANO1	O	0V	L	—	Open.
69	AVref2	AVREF2					A/D converter reference voltage input (+side) (+5V).
70	AVref3	AVREF3					A/D converter reference voltage input (−side) (0V).
71	P20/NMI	KI0	I	H	—	L	Key scan input 0.
72	P21/INTP0	KI1	I	H	—	L	Key scan input 1.
73	P22/INTP1	KI2	I	H	—	L	Key scan input 2.
74	P23/INTP2/CI	KI3	I	H	—	L	Key scan input 3.
75	P24/INTP3	KI4	I	H	—	L	Key scan input 4.
76	P25/INTP4/ASCK/SCK1	KI5	I	H	—	L	Key scan input 5.
77	P26/INTP5	KI6	I	H	—	L	Key scan input 6.
78	P27/SI0	KI7	I	H	—	L	Key scan input 7.
79	P30/RxD/SI1	RXD	I	Z	—	—	Status input from drive microcomputer.
80	P31/TxD/SO1	TXD	O	Z	—	—	Command output to drive microcomputer.

SEMICONDUCTORS

● IC's

HD74HC4053FP(IC205)
(Mecha unit)

Y_1	1	16	V_{cc}
Y_0	2	15	Y
Z_1	3	14	X
Z	4	13	X_1
Z_0	5	12	X_0
Inhibit	6	11	A
V_{EE}	7	10	B
GND	8	9	C
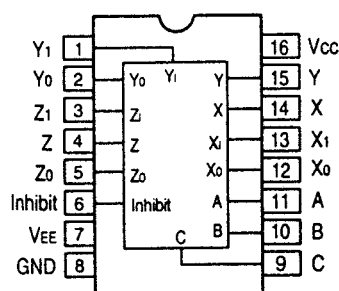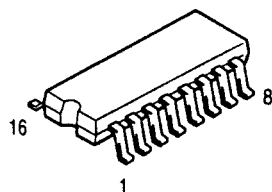
MSM514256(IC302, 307)
(Mecha unit)

DQ1	1	26	Vss
DQ2	2	25	DQ4
$\overline{WE}$	3	24	DQ3
$\overline{RAS}$	4	23	$\overline{CAS}$
NC	5	22	$\overline{OE}$
A0	9	18	A8
A1	10	17	A7
A2	11	16	A6
A3	12	15	A5
Vcc	13	14	A4
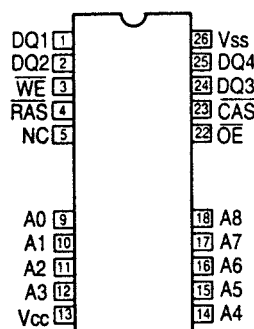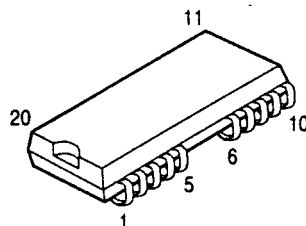
TC9246F(IC204, 404)
(Mecha unit)

REF	1	16	VDD
PD	2	15	LOCK
VDDA	3	14	S2
AMPI	4	13	S1
AMPO	5	12	M2
VSSA	6	11	M1
X1	7	10	CKO
XO	8	9	Vss
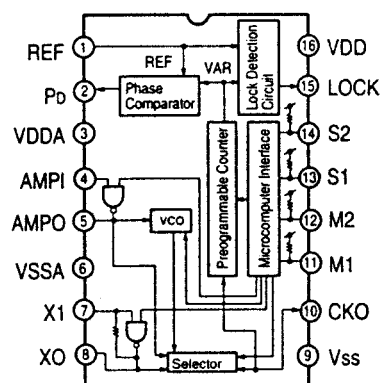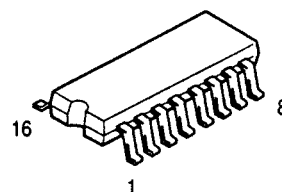
MC74F74ML1(IC306)
(Mecha unit)

$\overline{CD1}$	1	14	Vcc
D1	2	13	$\overline{CD2}$
CP1	3	12	D2
$\overline{SD1}$	4	11	CP2
Q1	5	10	$\overline{SD2}$
$\overline{Q1}$	6	9	Q2
GND	7	8	$\overline{Q2}$
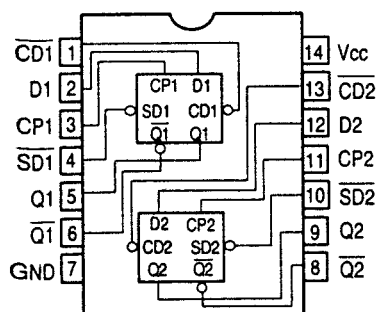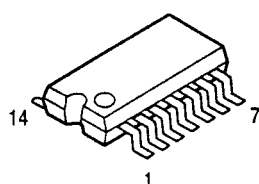
SM5841BS(IC401)
(Mecha unit)

$\overline{CKSL}$	1	22	DIN
XT1	2	21	BCK1
XT0	3	20	LRC1
CKO	4	19	BCKO
Vss	5	18	(NC)
(NC)	6	17	(NC)
(NC)	7	16	VDD
MDT	8	15	WCKO
MCK	9	14	DOL
$\overline{MLE}$	10	13	DOR
$\overline{RST}$	11	12	DG
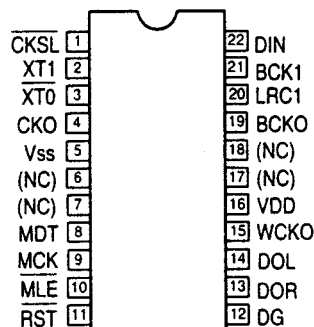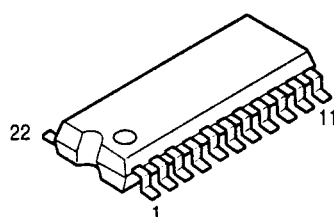
TC74HC573AF
(IC202) (Mecha unit)
(IC303) (Remote control unit)

$\overline{OE}$	1	20	Vcc
D0	2	19	Q0
D1	3	18	Q1
D2	4	17	Q2
D3	5	16	Q3
D4	6	15	Q4
D5	7	14	Q5
D6	8	13	Q6
D7	9	12	Q7
GND	10	11	CE
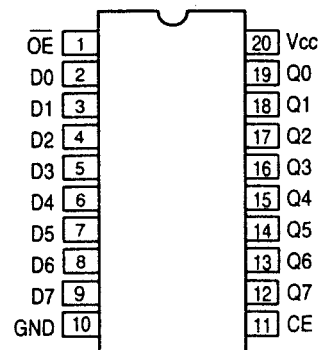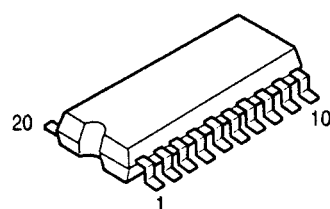
BA6287F(IC104) (Mecha unit)
BA15218F(IC403, 405, 501) (Mecha unit)

BA6287F

OUT1	1	8	GND
VIN	2	7	OUT2
Vcc	3	6	VREF
FIN	4	5	RIN

DRIVER DRIVER
TSD
POWER SAVE
CONTROL LOGIC

BA15218F

OUTPUT-1	1	8	VEE
INVERTING INPUT-1	2	7	OUTPUT-2
NON INVERTING INPUT-1	3	6	INVERTING INPUT-2
Vcc	4	5	NON INVERTING INPUT-2
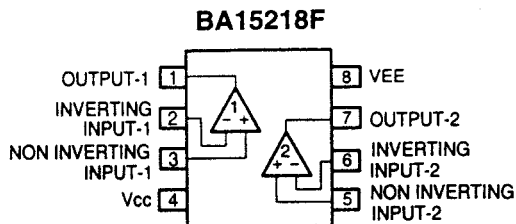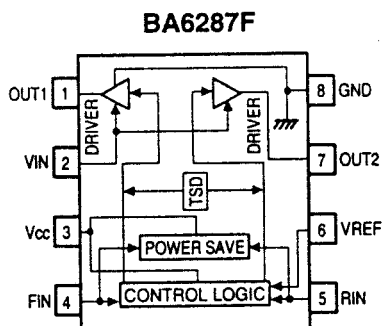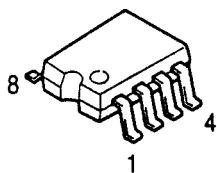
TMS27C512G
(IC203) (Mecha unit)
(IC302) (Remote control unit)

A15	1	28	Vcc
A12	2	27	A14
A7	3	26	A13
A6	4	25	A8
A5	5	24	A9
A4	6	23	A11
A3	7	22	G/Vpp
A2	8	21	A10
A1	9	20	E
A0	10	19	DQ8
DQ1	11	18	DQ7
DQ2	12	17	DQ6
DQ3	13	16	DQ5
GND	14	15	DQ4
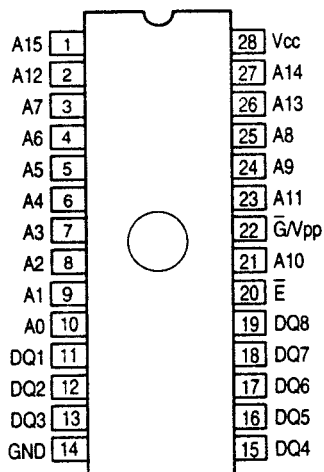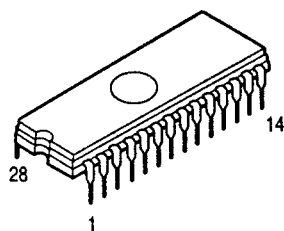
CAT28C64BP-15(IC304)
(Remote control unit)

NC	1	28	Vcc
A12	2	27	WE
A7	3	26	NC
A6	4	25	A8
A5	5	24	A9
A4	6	23	A11
A3	7	22	OE
A2	8	21	A10
A1	9	20	CE
A0	10	19	I/O7
I/O0	11	18	I/O6
I/O1	12	17	I/O5
I/O2	13	16	I/O4
Vss	14	15	I/O3
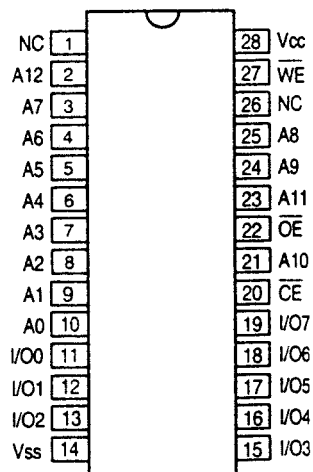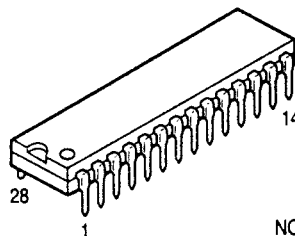
PCM69AP(IC402) (Mecha unit)
MC34051P (IC706) (Main unit)

PCM69AP

+Vcc	1	16	+VDD
VCOM Lch	2	15	TP1
IOUT Lch	3	14	DATA Lch
SERVO DC	4	13	WDCK
REF DC	5	12	SYS CLK
IOUT Rch	6	11	BCK
VCOM RcH	7	10	DATA RcH
AGND	8	9	DGND

MC34051P

REC1 IN-	1	16	Vcc
REC1 IN+	2	15	DR1 IN
REC1 OUT	3	14	DR1 OUT
DR1 EN	4	13	DR1 OUT
REC2 OUT	5	12	DR2 EN
REC2 IN+	6	11	DR2 OUT
REC2 IN-	7	10	DR2 OUT
GND	8	9	DR2 IN
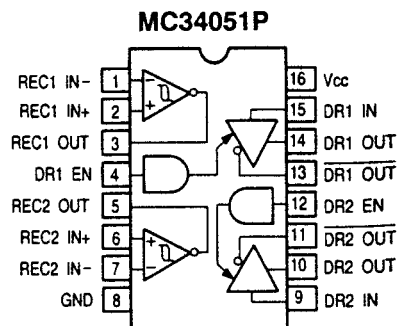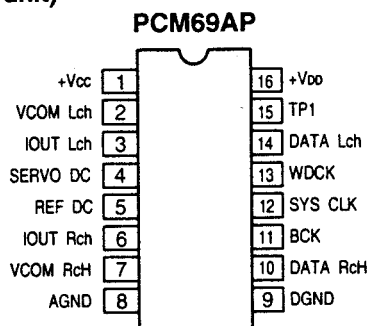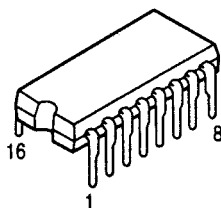
TC74HC00AF
(IC306)
(Remote control unit)

1A	1	14	Vcc
1B	2	13	4B
1Y	3	12	4A
2A	4	11	4Y
2B	5	10	3B
2Y	6	9	3A
GND	7	8	3Y
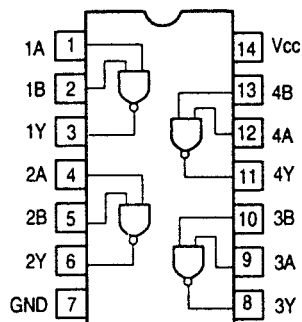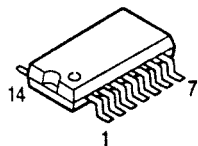
M5M34051FP
(IC401)
(Remote control unit)

Receiver Input	1RI	1	16	Vcc
	1RI	2	15	1DI — Driver Input
Receiver Output	1RO	3	14	1DO
Receiver Output Control Input1	1DE	4	13	$\overline{1DO}$ — Driver Output
Receiver Output	2RO	5	12	2DE — Driver Output Control Input2
Receiver Input	2RI	6	11	$\overline{2DO}$
	$\overline{2RI}$	7	10	2DO — Driver Output
	GND	8	9	2DI — Driver Input
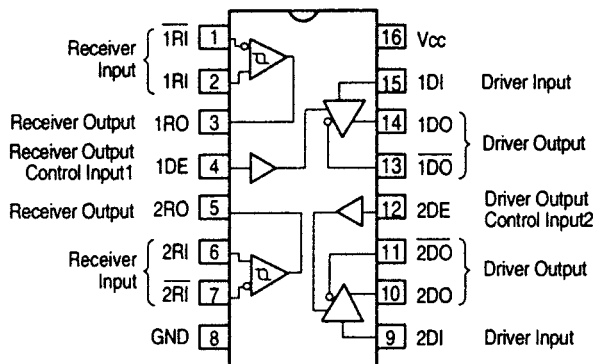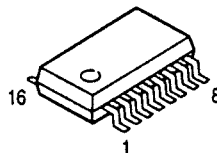
MN1382-S
(IC305)
(Remote control unit)
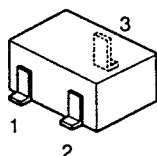
1: GND
2: VDD
3: OUT

NJM78M05FA
(IC701)
(Main unit)
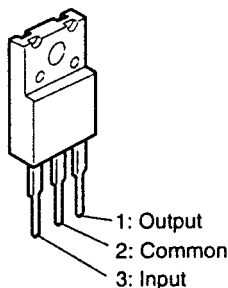
1: Output
2: Common
3: Input

PST529C
(IC703)
(Main unit)
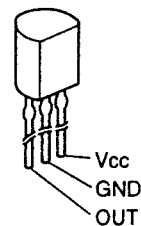
Vcc
GND
OUT

SI-3050C
(IC702, 707)
(Main unit)
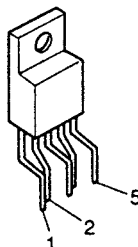
1. Vin
2. NC
3. GND
4. STB
5. Vout

NJM79M05FA
(IC704)
(Main unit)
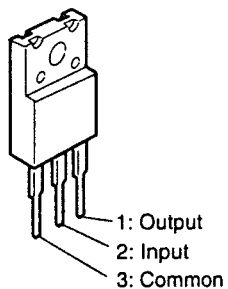
1: Output
2: Input
3: Common

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● TRANSISTORS

DTA114EK(TR251)
DTC114EK(TR252, 301~305)
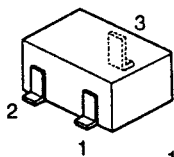
DTA114EK

DTC114EK

1: GND/Emitter
2: Input/Base
3: Output/Collector
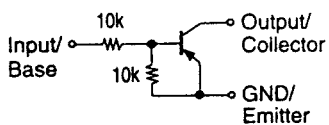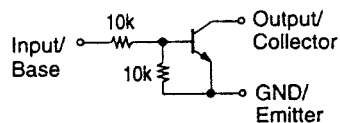
2SA933(TR102)
2SD2144(TR403,404)

2SB766S (TR101, 102, 201, 202)

E (Emitter)
C (Collector)
B (Base)
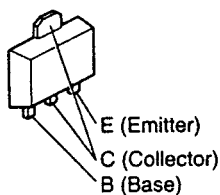
● DIODES

MA151A(D101~108, 201~208, 301~304)
MA151WA(D402, 404)
MA151WK(D401, 403)
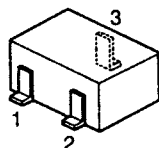
MA151A

MA151WA

MA151WK

1: NC
2: Cathode
3: Anode

1: Cathode
2: Cathode
3: Anode
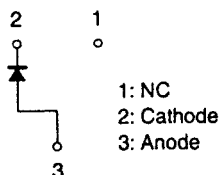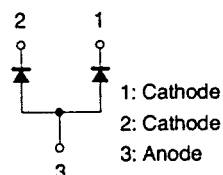
1: Anode
2: Anode
3: Cathode
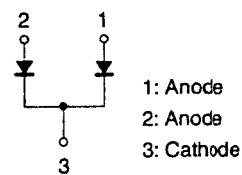
1SS270A
(D201, 708~716)
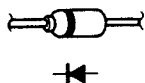
1SR35-200A
(D702~705)

S4VB20 (D701, 717)

Blue
Orange
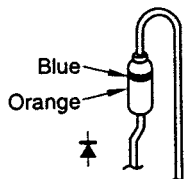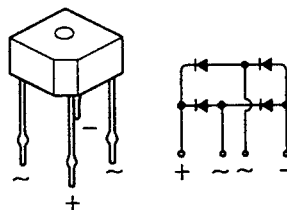
● LED

BACK LIGHT (LB101, 102)

SLR-325VC (Red) (LE103, 107, 203, 207, 801)
SLR-325MC (Green) (LE101, 105, 106, 108, 201, 205, 206, 208)
SLR-325DC (Orange) (LE102, 104, 109, 110, 202, 204, 209, 210)
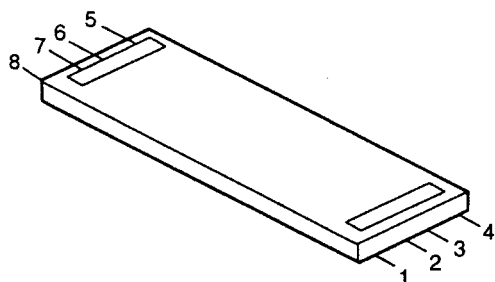
1, 3, 5, 7: Anode
2, 4, 6, 8: Cathode

Anode — Cathode
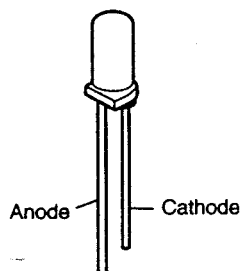
LCD (LC101)
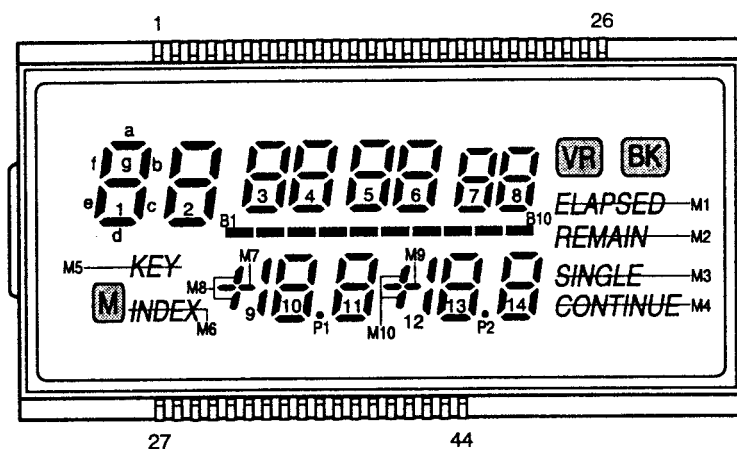
Terminal Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
		1d			2d			3d		B1	4d	B2	B3	5d	B4	B5	6d	B6	B7	7d	B8	B9	8d	B10	M1	N2
	1e	1g	1c	2e	2g	2c	3e	3g	3c	4e	4g	4c	5e	5g	5c	6e	6g	6c	7e	7g	7c	8e	8g	8c	BK	N3
	1f	1a	1b	2f	2a	2b	3f	3a	3b	4f	4a	4b	5f	5a	5b	6f	6a	6b	7f	7a	7b	8f	8a	8b	VR	N4

Pin No.	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	M6	M8	9bc	10d		P1	11d		M10	12bc	13d		P2	14d		COM0		
	M	M7	10e	10g	10c	11e	11g	11c	M9	13e	13g	13c	14e	14g	14c		COM1	
	M5		10f	10a	10b	11f	11a	11b		13f	13a	13b	14f	14a	14b			COM2

NOTE FOR PARTS LIST

● Part indicated with the mark " ◉ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

● When ordering of part, clearly indicate "1" and "l" (i) to avoid mis-supplying.

● Ordering part without stating its part number can not be supplied.

● Part indicated with the mark "★" is not illustrated in the exploded view.

● Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol ⚠ ■■■ have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.: RN 14K 2E 182 G FR

Type | Shape and performance | Power | Resistance | Allowable error | Others

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

• Resistance

1 8 2 ⇒ 1800 ohm = 1.8 kohm
— Indicates number of zeros after effective number.
— 2-digit effective number.
• Units: ohm

1 R 2 ⇒ 1.2 ohm
— 1-digit effective number.
— 2-digit effective number, decimal point indicated by R.
• Units: ohm

● Capacitors

Ex.: CE 04W 1H 2R2 M BP

Type | Shape and performance | Dielectric strength | Capacity | Allowable error | Others

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80% -20%	U : UL part
CP : Oil	2A : 100V		C : CSA part
CM : Mica	2B : 125V	P : +100% -0%	W : UL-CSA type
CF : Metallized	2C : 160V	C : ±0.25pF	F : Lead wire forming
CH : Metallized	2D : 200V	D : ±0.5pF	
	2E : 250V	= : Others	
	2H : 500V		
	2J : 630V		

• Capacity (electrolyte only)

2 2 2 ⇒ 2200μF
— Indicates number of zeros after effective number.
— 2-digit effective number.
• Units: μF.

2 R 2 ⇒ 2.2μF
— 1-digit effective number.
— 2-digit effective number, decimal point indicated by R.
• Units: μF.

• Capacity (except electrolyte)

2 2 2 ⇒ 2200pF = 0.0022μF
—(More than 2) — Indicates number of zeros after effective number.
— 2-digit effective number.
• Units: μF.

2 2 1 ⇒ 220pF
—(0 or 1) — Indicates number of zeros after effective number.
— 2-digit effective number.
• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dieelectric strength value.

PRINTED WIRING BOARD PARTS LIST
GU-2932 MECHA P.W.B. UNIT

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	262 2141 002	IC MN662720	
IC102	262 2142 904	IC AN8805S	
IC103	262 2143 903	IC AN8389	
IC104	263 0994 908	IC BA6287F	
IC201	262 2288 004	IC μPD784021	
IC202	262 1721 902	IC TC74HC573AF	
IC203	GEN 3607	DN25 ROM sub Ass'y	
IC204	262 1883 905	IC TC9246F	
IC205	262 2058 904	IC HD74HC4053FP	
IC301	262 2289 003	IC MN19412A	
IC302	262 2173 902	IC MSM514256(B-70,A-80)	
IC303	262 2290 005	IC MN19413	
IC304,305	262 2305 903	IC MN414400CSJ-07	
IC306	262 1962 907	IC MC74F74ML1	
IC307	262 2173 902	IC MSM514256(B-70,A-80)	
IC401	262 1765 900	IC SM5841BS	
IC402	262 2145 008	IC PCM69AP	
IC403	263 0674 901	IC μPC4570G2-E2	
IC404	262 1883 905	IC TC9246F	
IC405	263 0615 902	IC BA15218F	
IC501	263 0615 902	IC BA15218F	
TR102	271 0183 927	Transistor 2SA933 (R/S)	
TR103	273 0384 900	Transistor 2SC2412K	
TR251	269 0083 901	Transistor DTA114EK	
TR252,253	269 0082 902	Transistor DTC114EK	
TR403.404	274 0160 907	Transistor 2SD2144STPU	
D201	276 0432 903	Diode 1SS270A	
D202	276 0529 900	Doide MA157A	
D203	276 0432 903	Diode 1SS270A	
ZD101	276 0465 909	Zener Diode HZS7B-1	
RESISTORS GROUP(not included carbon film ±5% 1/4W type)			
R101	247 0007 903	Chip 680ohm 1/10W	RM73B-681J
R102	247 0006 988	Chip 560ohm 1/10W	RM73B-561J
R103	247 0012 927	Chip 100kohm 1/10W	RM73B-104J
R104	247 0014 967	Chip 1Mohm 1/10W	RM73B-105J
R105	247 0012 927	Chip 100kohm 1/10W	RM73B-104J
R106	247 0012 943	Chip 120kohm 1/10W	RM73B-124J
R107	247 0008 986	Chip 3.9kohm 1/10W	RM73B-392J

Ref No.	Part No.	Part Name	Remarks
R110	247 0013 900	Chip 220kohm 1/10W	RM73B-224J
R111	247 0011 928	Chip 39kohm 1/10W	RM73B-393J
R112	247 0010 987	Chip 27kohm 1/10W	RM73B-273J
R113	247 0011 986	Chip 68kohm 1/10W	RM73B-683J
R114,115	247 0013 942	Chip 330kohm 1/10W	RM73B-334J
R116	247 0012 901	Chip 82kohm 1/10W	RM73B-823J
R117	247 0010 945	Chip 18kohm 1/10W	RM73B-183J
R118	247 0011 960	Chip 56kohm 1/10W	RM73B-563J
R119	247 0008 944	Chip 2.7kohm 1/10W	RM73B-272J
R120	247 0012 998	Chip 200kohm 1/10W	RM73B-204J
R121	247 0009 901	Chip 4.7kohm 1/10W	RM73B-472J
R122	247 0008 944	Chip 2.7kohm 1/10W	RM73B-272J
R123	247 0009 901	Chip 4.7kohm 1/10W	RM73B-472J
R124	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R125	247 0010 945	Chip 18kohm 1/10W	RM73B-183J
R126	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R127,128	247 0005 905	Chip 100ohm 1/10W	RM73B-101J
R131	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R132	247 0008 960	Chip 3.3kohm 1/10W	RM73B-332J
R133-137	247 0018 905	Chip 0ohm 1/10W	RM73B-0R0K
R138	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R139	247 0005 905	Chip 100ohm 1/10W	RM73B-101J
R142	247 0008 986	Chip 3.9kohm 1/10W	RM73B-392J
R143	247 0008 957	Chip 3kohm 1/10W	RM73B-302J
R146,147	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R148	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R158	244 2050 904	Metallic 22ohm 1W	RS14B3A220JNBS(S)
R181	247 0013 939	Chip 300kohm 1/10W	RM73B-304J
R201	247 0018 905	Chip 0ohm 1/10W	RM73B-0R0K
R210	244 2051 974	Metallic 1kohm 1W	RS14B3A102JNBS(S)
R211	247 0004 993	Chip 91ohm 1/10W	RM73B-910J
R253	247 0012 998	Chip 200kohm 1/10W	RM73B-204J
R254	247 0005 905	Chip 100ohm 1/10W	RM73B-101J
R255	247 0013 939	Chip 300kohm 1/10W	RM73B-304J
R256	247 0005 989	Chip 220ohm 1/10W	RM73B-221J
R257	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R258	247 0008 915	Chip 2kohm 1/10W	RM73B-202J
R260	247 0012 927	Chip 100kohm 1/10W	RM73B-104J
R261	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R270,271	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R302	247 0018 905	Chip 0ohm 1/10W	RM73B-0R0K
R303-306	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R310-312	247 0018 905	Chip 0ohm 1/10W	RM73B-0R0K
R313	247 0006 904	Chip 270ohm 1/10W	RM73B-271J
R315	247 0005 905	Chip 100ohm 1/10W	RM73B-101J
R401-408	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R409	247 0006 920	Chip 330ohm 1/10W	RM73B-331J

Ref. No.	Part No.	Part Name	Remarks
R410	247 0007 929	Chip 820ohm 1/10W	RM73B--821J
R411	247 0007 945	Chip 1kohm 1/10W	RM73B--102J
R412	247 0006 920	Chip 330ohm 1/10W	RM73B--331J
R413	247 0007 929	Chip 820ohm 1/10W	RM73B--821J
R414	247 0007 958	Chip 1.1kohm 1/10W	RM73B--112J
R431	247 0010 990	Chip 30kohm 1/10W	RM73B--303J
R432	247 0007 903	Chip 680ohm 1/10W	RM73B--681J
R433	247 0008 944	Chip 2.7kohm 1/10W	RM73B--272J
R434	247 0010 990	Chip 30kohm 1/10W	RM73B--303J
R435	247 0007 903	Chip 680ohm 1/10W	RM73B--681J
R436	247 0008 944	Chip 2.7kohm 1/10W	RM73B--272J
R451	247 0007 945	Chip 1kohm 1/10W	RM73B--102J
R452	247 0008 915	Chip 2kohm 1/10W	RM73B--202J
R453	247 0005 905	Chip 100ohm 1/10W	RM73B--101J
R454	247 0013 939	Chip 300kohm 1/10W	RM73B--304J
R455	244 2043 924	Metallic 68ohm 1W	RS14B3A680JNBS(S)
R460	247 0018 905	Chip 0ohm 1/10W	RM73B--0R0K
R461	247 0009 972	Chip 9.1kohm 1/10W	RM73B--912J
R462	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R463	247 0010 961	Chip 22kohm 1/10W	RM73B--223J
R464	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R465	247 0009 972	Chip 9.1kohm 1/10W	RM73B--912J
R466	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R467	247 0010 961	Chip 22kohm 1/10W	RM73B--223J
R468	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R469,470	247 0010 990	Chip 30kohm 1/10W	RM73B--303J
R471	247 0007 958	Chip 1.1kohm 1/10W	RM73B--112J
R472	247 0007 945	Chip 1kohm 1/10W	RM73B--102J
R481	247 0007 945	Chip 1kohm 1/10W	RM73B--102J
R487,488	247 0005 989	Chip 220ohm 1/10W	RM73B--221K
R489,490	247 0009 912	Chip 5.1Kohm 1/10W	RM73B--512J
R501	247 0008 986	Chip 3.9kohm 1/10W	RM73B--392J
R502	247 0008 902	Chip 1.8kohm 1/10W	RM73B--182J
R503	247 0008 986	Chip 3.9kohm 1/10W	RM73B--392J
R504	247 0008 902	Chip 1.8kohm 1/10W	RM73B--182J
R505,506	247 0009 969	Chip 8.2kohm 1/10W	RM73B--822J
R507	247 0010 990	Chip 30kohm 1/10W	RM73B--303J
R508	247 0008 986	Chip 3.9kohm 1/10W	RM73B--392J
R509	247 0008 902	Chip 1.8kohm 1/10W	RM73B--182J
R510	247 0008 986	Chip 3.9kohm 1/10W	RM73B--392J
R511	247 0008 902	Chip 1.8kohm 1/10W	RM73B--182J
R512,513	247 0009 969	Chip 8.2kohm 1/10W	RM73B--822J
R514	247 0010 990	Chip 30kohm 1/10W	RM73B--303J
R516-518	247 0018 905	Chip 0ohm 1/10W	RM73B--0R0K
R519	247 0005 947	Chip 150ohm 1/10W	RM73B--151J
R520,521	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R522	247 0005 947	Chip 150ohm 1/10W	RM73B--151J
R526	247 0018 905	Chip 0ohm 1/10W	RM73B--0R0K

Ref No.	Part No.	Part Name	Remarks
R528	247 0018 905	Chip 0ohm 1/10W	RM73B--0R0K
R529-531	247 0003 949	Chip 22ohm 1/10W	RM73B--220J
R532,533	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R535	247 0018 905	Chip 0ohm 1/10W	RM73B--0R0K
L310	247 0006 920	Chip 330ohm 1/10W	RM73B--331J

CAPACITORS GROUP

Ref No.	Part No.	Part Name	Remarks
C101	254 4250 932	Electrolytic 220 µF/6.3V	CE04W0J221M(SME)
C102	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C103,104	257 0001 977	Chip(Ceramic) 5pF/50V	CC73SL1H5R0C
C105	256 1035 936	Metalizde 0.33 µF/50V	CF93A1H334J
C107	256 1034 979	Metalizde 0.1 µF/50V	CF93A1H104J
C109,110	257 0011 941	Chip(Ceramic) 0.022 µF/25V	CK73B1E223K
C111	257 0007 900	Chip(Ceramic) 1000pF/50V	CC73SL1H102J
C112	254 4250 932	Electrolytic 220 µF/6.3V	CE04W0J221M(SME)
C113	254 4305 968	Electrolytic 1 µF/50V	CE04W1H010M(SRE)
C114	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C115	257 0011 954	Chip(Ceramic) 0.027 µF/25V	CK73B1E273K
C116	257 0009 924	Chip(Ceramic) 2200pF/50V	CK73B1H222K
C117	257 0009 966	Chip(Ceramic) 4700pF/50V	CK73B1H472K
C118	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C119	254 4302 974	Electrolytic 100 µF/10V	CE04W1A101M(SRE)
C120	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C121	257 0001 977	Chip(Ceramic) 5pF/50V	CC73SL1H5R0C
C124	257 0011 983	Chip(Ceramic) 0.047 µF/25V	CK73B1E473K
C125	257 0009 966	Chip(Ceramic) 4700pF/50V	CK73B1H472K
C126,127	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C128,129	257 0005 986	Chip(Ceramic) 330pF/50V	CC73SL1H331J
C130	257 0011 996	Chip(Ceramic) 0.1 µF/25V	CK73B1E104K
C132	254 4299 964	Electrolytic 47 µF/16V	CE04W1C470M(SRE)
C133	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C134	254 4299 964	Electrolytic 47 µF/16V	CE04W1C470M(SRE)
C135,136	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C137	254 4302 974	Electrolytic 100 µF/10V	CE04W1A101M(SRE)
C139	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C140	257 0009 908	Chip(Ceramic) 1500pF/50V	CK73B1H152K
C141	257 0009 995	Chip(Ceramic) 8200pF/50V	CK73B1H822K
C142,143	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C145	257 0009 924	Chip(Ceramic) 2200pF/50V	CK73B1H222K
C146	257 0004 903	Chip(Ceramic) 56pF/50V	CC73SL1H560J
C147	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C148	254 4299 964	Electrolytic 47 µF/16V	CE04W1C470M(SRE)
C149	254 4305 984	Electrolytic 2.2 µF/50V	CE04W1H2R2M(SRE)
C150,151	257 0005 944	Chip(Ceramic) 220pF/50V	CC73SL1H221J
C154	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C155,156	254 3061 902	Electrolytic 1 µF/50V(Bipolar)	CE04D1H010ME3P(SRE)
C160	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C161	254 3061 902	Electrolytic 1 µF/50V(Bipolar)	CE04D1H010ME3P(SRE)
C162,163	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z
C165-169	257 0014 935	Chip(Ceramic) 0.1 µF/25V	CK73F1E104Z

Ref. No.	Part No.	Part Name	Remarks
C181	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C182	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C201	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C202	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C203,204	257 0002 921	Chip(Ceramic) 10pF/50V	CC73SL1H100D
C205	254 4254 954	Electrolytic 220 μF/16V	CE04W1C221M (SME)
C206	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M (SRE)
C207	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C251	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C252	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C254	254 4305 955	Electrolytic 0.68 μF/50V	CE04W1HR68M(SRE)
C260	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C301,302	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C303,304	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C305-307	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C308	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C309	257 0012 966	Chip(Ceramic) 0.01 μF/50V	CK73F1H103Z
C311	257 0012 966	Chip(Ceramic) 0.01 μF/50V	CK73F1H103Z
C312	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C313	257 0012 966	Chip(Ceramic) 0.01 μF/50V	CK73F1H103Z
C314	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C315	257 0012 966	Chip(Ceramic) 0.01 μF/50V	CK73F1H103Z
C317	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C318.319	257 0007 900	Chip(Ceramic) 1000pF/25V	CC73SL1H102J
C320	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C321	257 1147 906	Ceramic 0.015μF/50V	CK45F1H153Z
C401	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C402	254 4299 906	Electrolytic 10 μF/16V	CE04W1C100M(SRE)
C403	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C404-407	254 4299 906	Electrolytic 10 μF/16V	CE04W1C100M(SRE)
C408	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C409	254 4299 906	Electrolytic 10 μF/16V	CE04W1C100M(SRE)
C410-413	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C414	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C418,419	254 4299 906	Electrolytic 10 μF/16V	CE04W1C100M(SRE)
C420,421	257 0007 900	Chip(Ceramic) 1000pF/50V	CC73SL1H102J
C423	254 4305 955	Electrolytic 0.68 μF/50V	CE04W1HR68M(SRE)
C424	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C425	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C430	254 4302 974	Electrolytic 100 μF/10V	CE04W1A101M(SRE)
C431	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C433	257 0003 946	Chip(Ceramic) 33pF/50V	CC73SL1H330J
C434	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C440	257 0007 900	Chip(Ceramic) 1000pF/50V	CC73SL1H102J
C462	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C464	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C465,466	254 4299 906	Electrolytic 10 μF/16V	CE04W1C100M(SRE)

Ref No.	Part No.	Part Name	Remarks
C471,472	257 0007 900	Chip(Ceramic) 1000pF/50V	CC73SL1H102J
C473	257 0006 927	Chip(Ceramic) 470pF/50V	CC73SL1H471J
C475,476	257 0002 921	Chip(Ceramic) 10pF/50V	CC73SL1H100D
C501	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C502,503	257 0005 944	Chip(Ceramic) 220pF/50V	CC73SL1H221J
C504	254 4299 906	Electrolytic 10 μF/16V	CE04W1C100M(SRE)
C505	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C506,507	257 0005 944	Chip(Ceramic) 220pF/50V	CC73SL1H221J
C508	254 4299 906	Electrolytic 10 μF/16V	CE04W1C100M(SRE)
C511	254 4299 964	Electrolytic 47 μF/16V	CE04W1C470M(SRE)
C512	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C513	254 4299 964	Electrolytic 47 μF/16V	CE04W1C470M(SRE)
C514	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C515	257 0007 900	Chip(Ceramic) 1000pF/50V	CC73SL1H102J
C516	254 4299 964	Electrolytic 47 μF/16V	CE04W1C470M(SRE)
C517	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J
C518	257 0007 900	Chip(Ceramic) 1000pF/50V	CC73SL1H102J
C519,520	254 4299 919	Electrolytic 22 μF/16V	CE04W1C220M(SRE)
C521	254 4305 968	Electrolytic 1 μF/50V	CE04W1H010M(SRE)
C522,523	254 4299 919	Electrolytic 22 μF/16V	CE04W1C220M(SRE)
C524	254 4299 964	Electrolytic 47 μF/16V	CE04W1C470M(SRE)
C525,526	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C527	257 0005 944	Chip(Ceramic) 220pF/50V	CC73SL1H221J

OTHERS PARTS GROUP

Ref No.	Part No.	Part Name	Remarks
X101	399 0036 013	Crystal	16.9344MHz
X201	399 0141 908	Crystal	24.57MHz
X310	399 0331 909	Crystal	39.45MHz
L101,201	235 0106 908	CHIP EMIFIL (21A05)	
L301	235 0106 908	CHIP EMIFIL (21A05)	
L303-306	235 0106 908	CHIP EMIFIL (21A05)	
L400-402	235 0106 908	CHIP EMIFIL (21A05)	
L501	235 0107 949	LEM4532T101	
CB201	205 0736 047	17P FFC connector base	
CB101	205 0355 062	6P KR connector base(L)	
CB102	205 0685 062	6P KR connector base(BLK)L	
CB103	205 0395 064	6P connector base(RED)L	
CB104	205 0939 006	5P connector base	
CB401	205 0823 031	11P connector plug	
CB401	205 0824 030	11P connector base	
CB402	205 0823 015	9P connector plug	
CB402	205 0824 014	9P connector base	
JA301	204 8511 009	2P pin jack	
JA302	204 8421 005	Mini jack	
IC203	205 0488 010	28P IC socket	
W701	203 0301 078	1P contact Ass'y	

GU-2935 MAIN P.W.B. UNIT

Ref No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC701	263 0800 005	IC NJM78M05FA(S)	
IC702	263 0935 006	IC SI-3050C	
IC703	263 0652 907	IC PST529C	
IC704	263 0501 003	IC NJM79M05FA	
IC706	263 1002 006	IC MC34051P	
IC707	263 0935 006	IC SI-3050C	
D701	276 0338 007	Diode S4VB20F	
D702-705	276 0553 905	Diode 1SR35-200A	
D708-716	276 0432 903	Diode 1SS270A	
D717	276 0338 007	Diode S4VB20F	
LE801	393 9543 907	LED SLR-325VC(RED)	
RESISTORS GROUP(not included carbon film ±5% 1/4W type)			
R708-710	244 0068 024	Metallic 3.3ohm 2W	RS14B3D3R3JNBF
CAPACITORS GROUP			
C199	253 9039 906	Ceramic 0.1 µF/25V	CK45=1E104Z
C701	254 4416 705	Electrolytic 10000 µF/25V	CE04W1E103MC(SME)
C702,703	254 4254 792	Electrolytic 2200 µF/16V	CE04W1C222MC(SME)
C704	253 9014 792	Ceramic 0.01 µF/200VAC	CK45F2GAC103MC Europe and U.K. models
C706	254 4254 941	Electrolytic 100 µF/16V	CE04W1C101M(SME)
C708	253 9039 906	Ceramic 0.1 µF/25V	CK45=1E104Z
C709	254 4254 954	Electrolytic 220 µF/16V	CE04W1C221M(SME)
C751	253 9039 906	Ceramic 0.1 µF/25V	CK45=1E104Z
C752	254 4254 909	Electrolytic 10 µF/16V	CE04W1C100M(SME)
C753	253 9039 906	Ceramic 0.1 µF/25V	CK45=1E104Z
C754	254 4254 909	Electrolytic 10 µF/16V	CE04W1C100M(SME)
C755	253 9039 906	Ceramic 0.1 µF/25V	CK45=1E104Z
C756	254 4254 941	Electrolytic 100 µF/16V	CE04W1C101M(SME)
C757,758	253 9039 906	Ceramic 0.1 µF/25V	CK45=1E104Z
C759	254 4254 941	Electrolytic 100 µF/16V	CE04W1C101M(SME)
C760	253 9039 906	Ceramic 0.1 µF/25V	CK45=1E104Z
C761,762	254 4254 938	Electrolytic 47 µF/16V	CE04W1C470M(SME)
C763,764	253 1146 907	Ceramic 0.01 µF/50V	CK45F1H103Z
C766,767	253 1147 906	Ceramic 0.015 µF/50V	CK45F1H153Z

Ref No.	Part No.	Part Name	Remarks
OTHERS PARTS GROUP			
SW704	212 1031 008	Power switch(TV-5)	Europe and U.K. models
SW801,802	212 4775 905	Tact switch	Long st
SW803	212 1039 000	1P push switchi	
F101	202 0040 909	Fuse clip	
F101	206 1039 018	Fuse (0.8A)	U.S.A and Canada models
F101	206 1031 032	Fuse (1.6A)	Europe and U.K. models
	513 2014 008	Fuse label	Europe and U.K. models
CB701	205 0343 058	5P connector base KR-PH	
CB702	205 0581 001	2P VH connector base	
CB703,704	205 0668 076	17P FFC connector base	
CB705	205 0877 003	8P MD connector base (F-S)	
CB706,707	205 0581 001	2P VH connector base	Europe and U.K. models
	203 0466 007	1P conntact ass'y	
CC101	204 0489 003	6P connector cord(M-P)	
CC102	204 0490 005	6P shield wire	
CC103	204 0479 000	6P connector cord	
CC705	204 2750 002	8P MD connector cord(L)	
CC801	203 8169 047	5P KR-DS connector cord	
CC802	203 4853 001	3P DS-DS connector cord	
	203 5132 019	3P VH connector cord	Europe and U.K. models
	417 0307 011	Heat sink	

GU-2943 REMOTE P.W.B. UNIT

Ref No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	262 2291 004	IC LC75850E	
IC201	262 2291 004	IC LC75850E	
IC301	262 2288 004	IC μPD784021	
IC302	GEN 3608	RC44 ROM sub Ass'y	
IC303	262 1721 902	IC TC74HC573AF	
IC304	262 2103 008	IC CAT28C64BP-15	
IC305	262 1647 905	IC MN1382-S	
IC306	262 1718 902	IC TC74HC00AF	
IC401	262 1597 903	IC M5M34051FP	
TR101,102	272 0081 909	Transistor 2SB766S	
TR201,202	272 0081 909	Transistor 2SB766S	
TR301-305	269 0082 902	Transistor DTC114EK	
D101-108	276 0438 910	Diode MA151A	
D201-208	276 0438 910	Diode MA151A	
D301-304	276 0438 910	Diode MA151A	
D401	276 0438 949	Diode MA151WK	
D402	276 0438 907	Diode MA151WA	
D403	276 0438 949	Diode MA151WK	
D404	276 0438 907	Diode MA151WA	
LE101	393 9543 910	LED SLR-325MC (GRN)	
LE102	393 9543 923	LED SLR-325DC (ORG)	
LE103	393 9543 907	LED SLR-325VC (RED)	
LE104	393 9543 923	LED SLR-325DC (ORG)	
LE105,106	393 9543 910	LED SLR-325MC (GRN)	
LE107	393 9543 907	LED SLR-325VC (RED)	
LE108	393 9543 910	LED SLR-325MC (GRN)	
LE109,110	393 9543 923	LED SLR-325DC (ORG)	
LE201	393 9543 910	LED SLR-325MC (GRN)	
LE202	393 9543 923	LED SLR-325DC (ORG)	
LE203	393 9543 907	LED SLR-325VC (RED)	
LE204	393 9543 923	LED SLR-325DC (ORG)	
LE205,206	393 9543 910	LED SLR-325MC (GRN)	
LE207	393 9543 907	LED SLR-325VC (RED)	
LE208	393 9543 910	LED SLR-325MC (GRN)	
LE209,210	393 9543 923	LED SLR-325DC (ORG)	
LB101	393 6009 114	L.C.D back light	

Ref No.	Part No.	Part Name	Remarks
LB201	393 6009 114	L.C.D back light	
RESISTORS GROUP (not included carbon film ±5% 1/4W type)			
R101-110	247 0005 989	Chip 220ohm 1/10W	RM73B--221J
R111,112	247 0006 920	Chip 330ohm 1/10W	RM73B--331J
R113,114	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R115-118	247 0004 906	Chip 39ohm 1/10W	RM73B--390J
R122	247 0013 942	Chip 330kohm 1/10W	RM73B--334J
R123	247 0011 957	Chip 51kohm 1/10W	RM73B--513J
R201-210	247 0005 989	Chip 220ohm 1/10W	RM73B--221J
R211,212	247 0006 920	Chip 330ohm 1/10W	RM73B--331J
R213,214	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R215-218	247 0004 906	Chip 39ohm 1/10W	RM73B--390J
R222	247 0013 942	Chip 330kohm 1/10W	RM73B--334J
R223	247 0011 957	Chip 51kohm 1/10W	RM73B--513J
R301-312	247 0009 985	Chip 10kohm 1/10W	RM73B--103J
R313	247 0009 901	Chip 4.7kohm 1/10W	RM73B--472J
R314	247 0011 944	Chip 47kohm 1/10W	RM73B--473J
R316-320	247 0018 905	Chip 0ohm 1/10W	RM73B--0R0K
R401,402	247 0007 945	Chip 1kohm 1/10W	RM73B--102J
R403	247 0005 905	Chip 100ohm 1/10W	RM73B--101J
VR101	211 0849 007	Slide volume (C)	
VR201	211 0849 007	Slide volume (C)	
CAPACITORS GROUP			
C101	254 4252 927	Electrolytic 47 μF/10V	CE04W1A470M (SME)
C102	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C105	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C106	257 0006 969	Chip(Ceramic) 680pF/50V	CC73SL1H681J
C201	254 4252 927	Electrolytic 47 μF/10V	CE04W1A470M (SME)
C202	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C205	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C206	257 0006 969	Chip(Ceramic) 680pF/50V	CC73SL1H681J
C301-304	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C305	254 4302 958	Electrolytic 47 μF/10V	CE04W1A470M(SRE)
C306,307	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C308,309	257 0003 904	Chip(Ceramic) 22pF/50V	CC73SL1H220J
C310	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C311	254 4302 916	Electrolytic 10 μF/10V	CE04W1A100M(SRE)
C312-315	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
C401	254 4302 958	Electrolytic 47 μF/10V	CE04W1A470M(SRE)

Ref No.	Part No.	Part Name	Remarks
C402-404	257 0014 935	Chip(Ceramic) 0.1 μF/25V	CK73F1E104Z
OTHERS PARTS GROUP			
X301	399 0141 908	Crystal	24.57MHz
S101-138	212 5604 907	Tact switch	
S201-213	212 5604 907	Tact switch	
S216-222	212 5604 907	Tact switch	
LC101	393 6019 007	L.C.D	
LC201	393 6019 007	L.C.D	
	415 0731 102	Sheet	
JS101	212 0352 018	Jog-Shuttle	
JS201	212 0352 018	Jog-Shuttle	
L401-406	235 0049 900	Beads inductor	
IC302	205 0488 010	28P IC socket	
	205 0849 002	6P connector base(BTMK-S)	
	205 0850 004	6P connector base(BTMK-P)	
	205 0849 015	8P connector base(BTMK-S)	
	205 0850 017	8P connector base(BTMK-P)	
	205 0849 028	10P connector base(BTMK-S)	
	205 0850 020	10P connector base(BTMK-P)	
	205 0849 031	18P connector base(BTMK-S)	
	205 0850 033	18P connector base(BTMK-P)	
	205 0849 044	20P connector base(BTMK-S)	
	205 0850 046	20P connector base(BTMK-P)	
	205 0877 003	8P MD connector base (F-S)	

PRINTED WIRING BOARD PATTERNS

GU-2943 REMOTE CONTROL P.W.B. UNIT ASS'Y

1 2 3 4 5 6 7 8

A

B

C

D

E

GU-2932 MECHA. P.W.B. UNIT ASS'Y
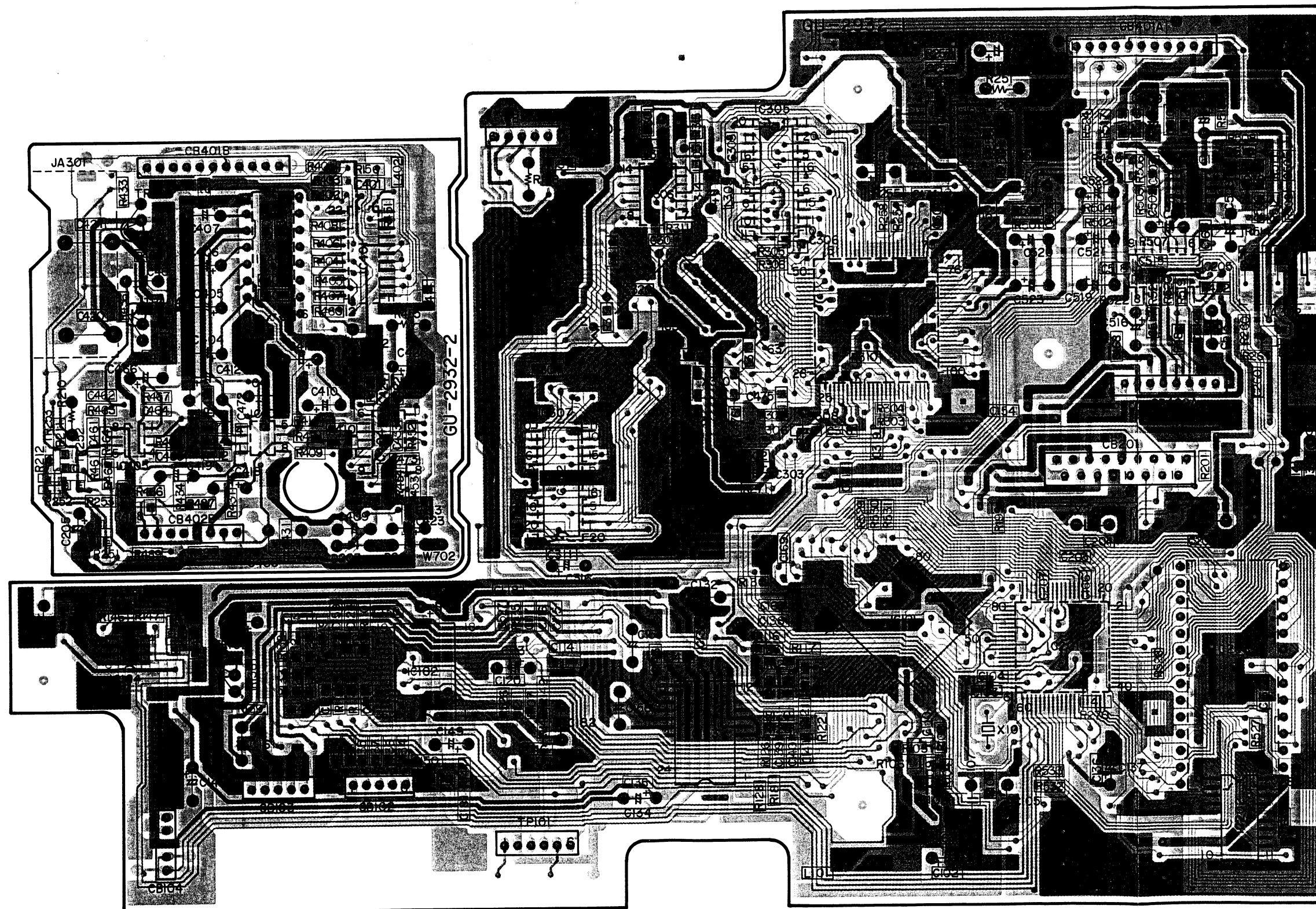
GU-2935 MAIN P.W.B. UNIT ASS'Y
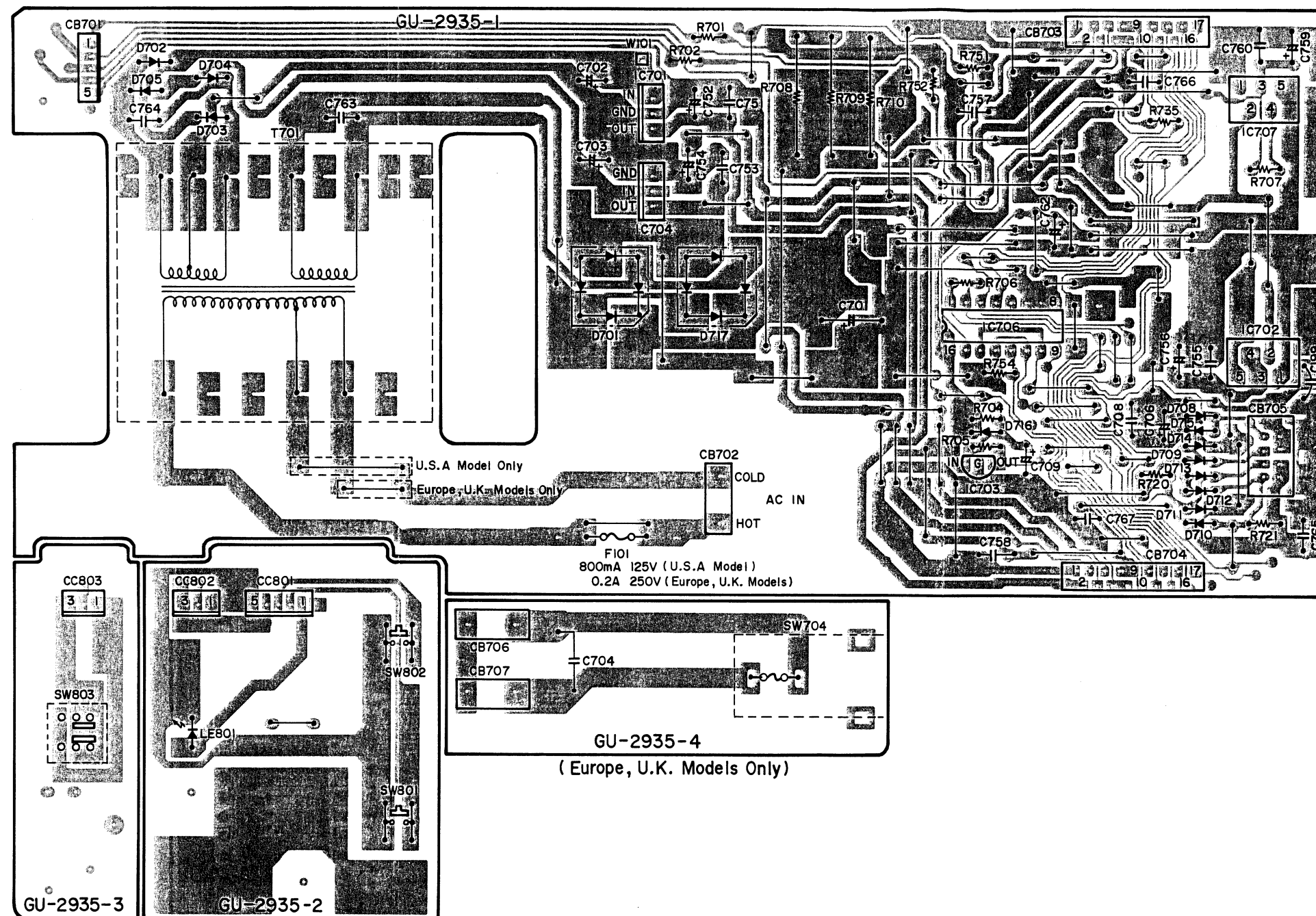
PARTS LIST OF RC-44 REMOTE CONTROL UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	GU- 2943	Remote P.W.B. unit Ass'y		1
1-1	GU- 2943 -1	Left P.W.B. unit		
1-2	GU- 2943 -2	Right P.W.B. unit		
1-3	GU- 2943 -3	CPU P.W.B. unit		
1-4	GU- 2943 -4	Connect P.W.B. unit		
1-5	GU- 2943 -5	Junction P.W.B. unit		
2	393 6009 114	L.C.D back light		2
3	393 6019 007	L.C.D		2
4	211 0849 007	Slide volume		2
5	212 0352 018	Jog shuttle		2
6	212 5604 907	Tact switch		58
7	393 9543 907	LED SLR-325VC (RED)		4
8	393 9543 910	LED SLR-325MC (GRN)		8
9	393 9543 923	LED SLR-325DC (ORG)		8
12	205 0877 003	8P MD connector base (F-S)		1
14	144 2508 004	Operation panel		1
15	146 1636 009	LCD window		2
16	146 1371 005	LED window		20
18	119 0086 001	Rubber button (1)		1
19	119 0087 000	Rubber button (2)		1
20	113 1523 002	Slide knob		2
21	105 1204 003	Cover		1
22	104 0270 006	Foot		4
24	449 0133 004	PWB holder		2
26	461 0840 009	Rubber pad		2
27	441 1783 103	Operation sub panel		1
28	113 1642 006	Jog dial		2

SCREWS				
101	473 7002 005	3X6 CBTS(S)-Z		16
102	473 7002 021	3X8 CBTS (S)-B		4
103	471 3303 029	3X6 CBS-B		1
104	475 5120 024	3X5 HSHB MFZNB		8
105	475 1178 009	3W-B		13

EXPLODED VIEW OF RC-44 REMOTE CONTROL UNIT
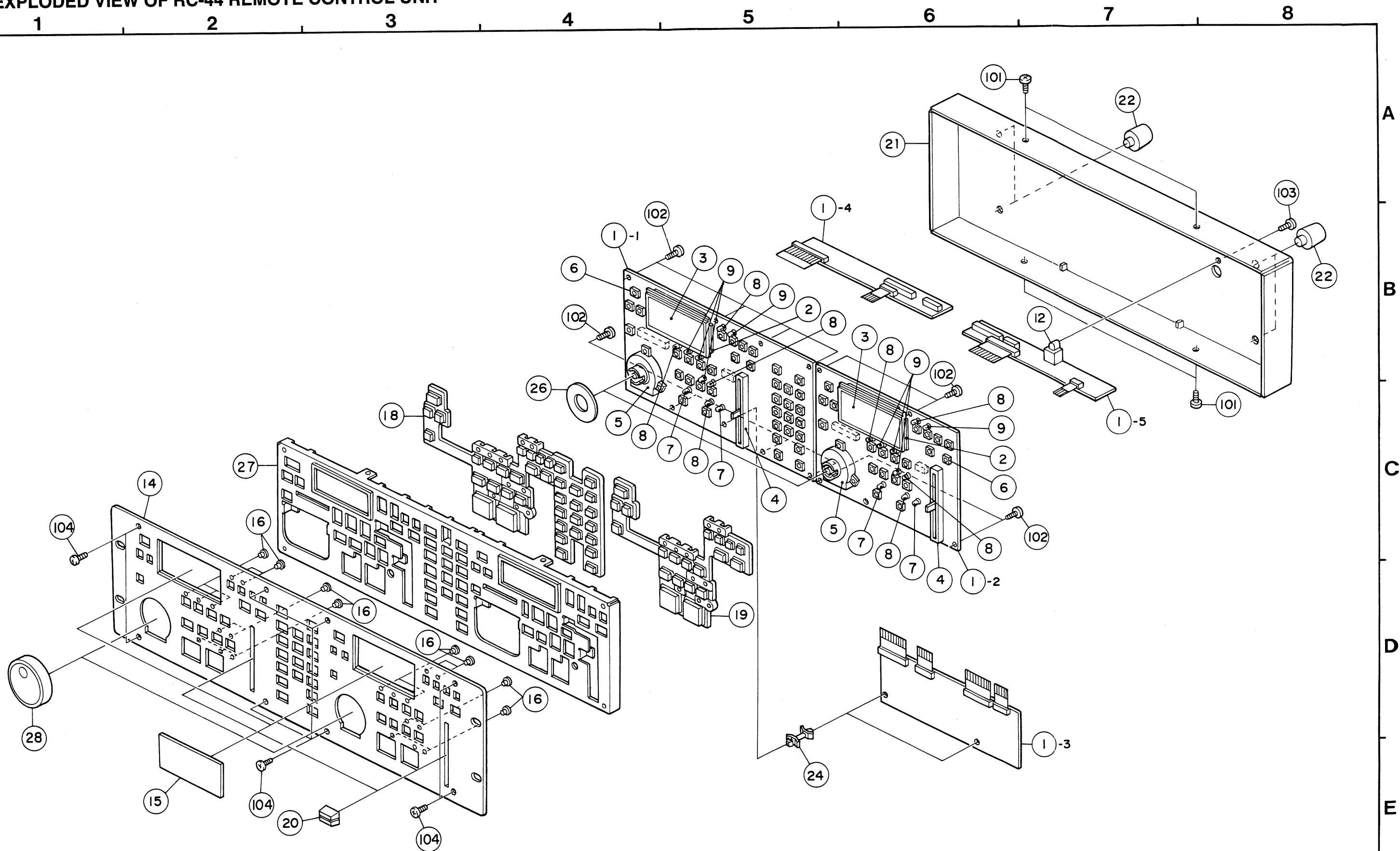
EXPLODED VIEW OF CHASSIS AND CABINET

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

Europe and U.K.
models only.
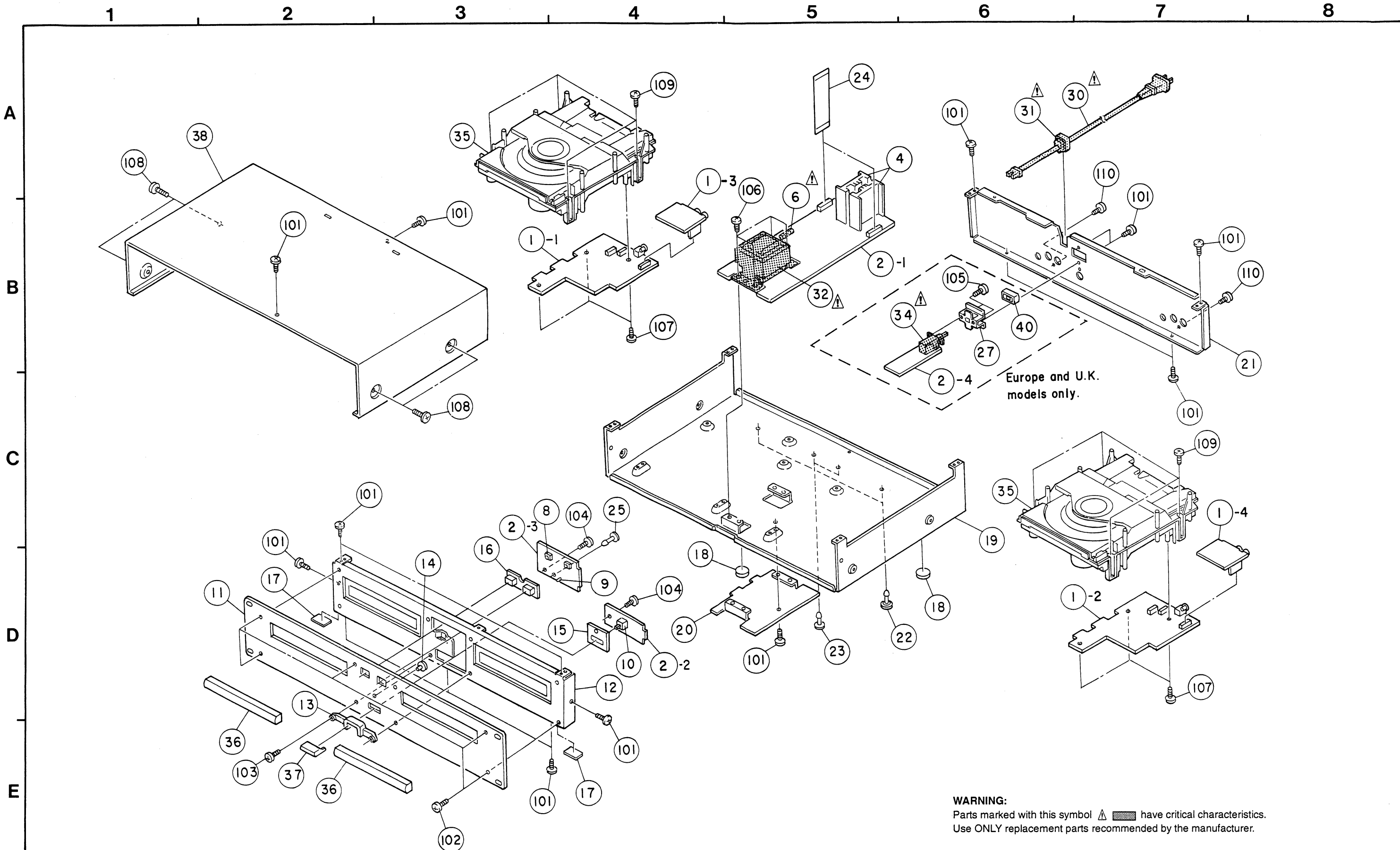
PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
◉─1	GU-2932	Mecha P.W.B. unit Ass'y		1
1-1	GU-2932-1	Drive P.W.B. unit		
1-2	GU-2932-1	Drive P.W.B. unit		
1-3	GU-2932-2	Audio P.W.B. unit		
1-4	GU-2932-2	Audio P.W.B. unit		
◉─2	GU-2935	Main P.W.B. unit Ass'y		1
2-1	GU-2935-1	Main P.W.B. unit		
2-2	GU-2935-2	SW. P. P.W.B. unit		
2-3	GU-2935-3	SW. P.W.B. unit		
2-4	GU-2935-4	AC switch P.W.B. unit	Europe and U.K. models	
4	417 0307 011	Heat sink		2
⚠ 6	206 1039 018	Fuse (0.8A)	U.S.A. and Canada models	1
⚠ 6	206 1031 092	Fuse (1.6A)	Europe and U.K. models	1
7	205 0877 003	8P MD connector base (F-S)		1
8	212 4775 905	Tact switch	Long st	2
9	393 9543 907	LED SLR-325VC(RED)		1
10	212 1039 000	1P push switch		1
◉ 11	144 2446 111	Front panel		1
◉ 12	441 1715 003	Front sub panel		1
13	146 1579 001	P. bottun protector		1
14	146 1371 005	LED window		1
15	441 1714 004	P. button guide		1
16	119 0069 109	Rubber button (B)		1
◉ 17	461 0740 002	Sheet		2
18	461 0706 127	Foot sheet		2
◉ 19	411 1327 102	Chassis		1
◉ 20	441 1713 005	Bottom plate		1
◉ 21	105 1206 108	Back panel	U.S.A. and Canada models	1
◉ 21	105 1206 111	Back panel	Europe model	1
◉ 21	105 1206 124	Back panel	U.K. model	1
◉ 22	449 0077 021	Card spacer		2
◉ 23	449 0077 034	Card spacer		2
24	009 0096 008	17P FFC cable		2
◉ 25	449 0077 047	Card spacer		1
◉ 26	412 2814 015	Card spacer	L=14	1
27	412 4143 001	AC SW bracket	Europe and U.K. models	1
⚠ 30	206 2110 004	AC cord with connector	U.S.A. and Canada models	1
⚠ 30	206 2089 106	AC cord with connector(E2)	Europe model	1
⚠ 30	206 2126 009	AC cord with connector(EK)	U.K. model	1
⚠ 31	445 0056 008	Cord bush		1
⚠ 32	233 6163 004	Power trans	U.S.A. and Canada models	1

Ref No.	Part No.	Part Name	Remarks	Q'ty
⚠ 32	233 6167 000	Power trans(E2)	Europe and U.K. models	1
35	337 0043 008	CD mecha unit	FG-110	2
36	146 1571 106	Loader panel		2
37	113 1357 207	Power switch button		1
◉ 38	102 0425 253	Top cover		1
	342 0020 007	Ferrite core		1
⚠ 39	212 1031 008	Power switch (TV-5)	Europe and U.K. models	1
◉	461 0804 016	Himeron sheet		2
40	113 1689 001	Power switch knob	Europe and U.K. models	1
	204 0489 003	6P connector cord (M-P)	CC101	2
	204 0490 005	6P shield wire	CC102	2
	204 0479 000	6P connector cord	CC103	2
	513 1581 011	Serial no. sheet		1
	LL-64426	CSA label DCI SHIRA	U.S.A. and Canada models	1
	513 1519 009	Manufac. date label	U.S.A. and Canada models	1
	513 2065 002	E2 laser caution	Europe model	2
	513 1144 005	Masking sheet	Europe model	1
	513 2014 008	Fuse label	Europe and U.K. models	1

SCREWS

Ref No.	Part No.	Part Name	Remarks	Q'ty
101	473 7002 021	Screw 3X8 CBTS (S)-B	U.S.A. and Canada models	15
101	473 7002 021	Screw 3X8 CBTS (S)-B	Europe and U.K. models	17
102	475 5120 024	Screw 3X5 HSHB MFZNB		6
103	475 5120 011	Screw 3X8 HSHB MFZNB		2
104	473 7002 005	Screw 3X6 CBTS(S)-Z		4
105	471 3303 029	Screw 3X6 CBS-B	U.S.A. and Canada models	1
105	471 3303 029	Screw 3X6 CBS-B	Europe and U.K. models	3
106	473 7004 003	Screw 4X8 CBTS (S)-Z		4
107	473 7519 006	Screw 2.6X8 CBTS(P)-B		6
108	473 7007 000	Screw 4X8 CBTS (S)-B		4
109	473 7005 002	Screw 3X10 CBTS (S)-Z		8
110	473 7508 017	Screw 3X10 CBTS (P)-B		2
111	475 1178 009	3W-B		6

PACKING & ACCESSORIES
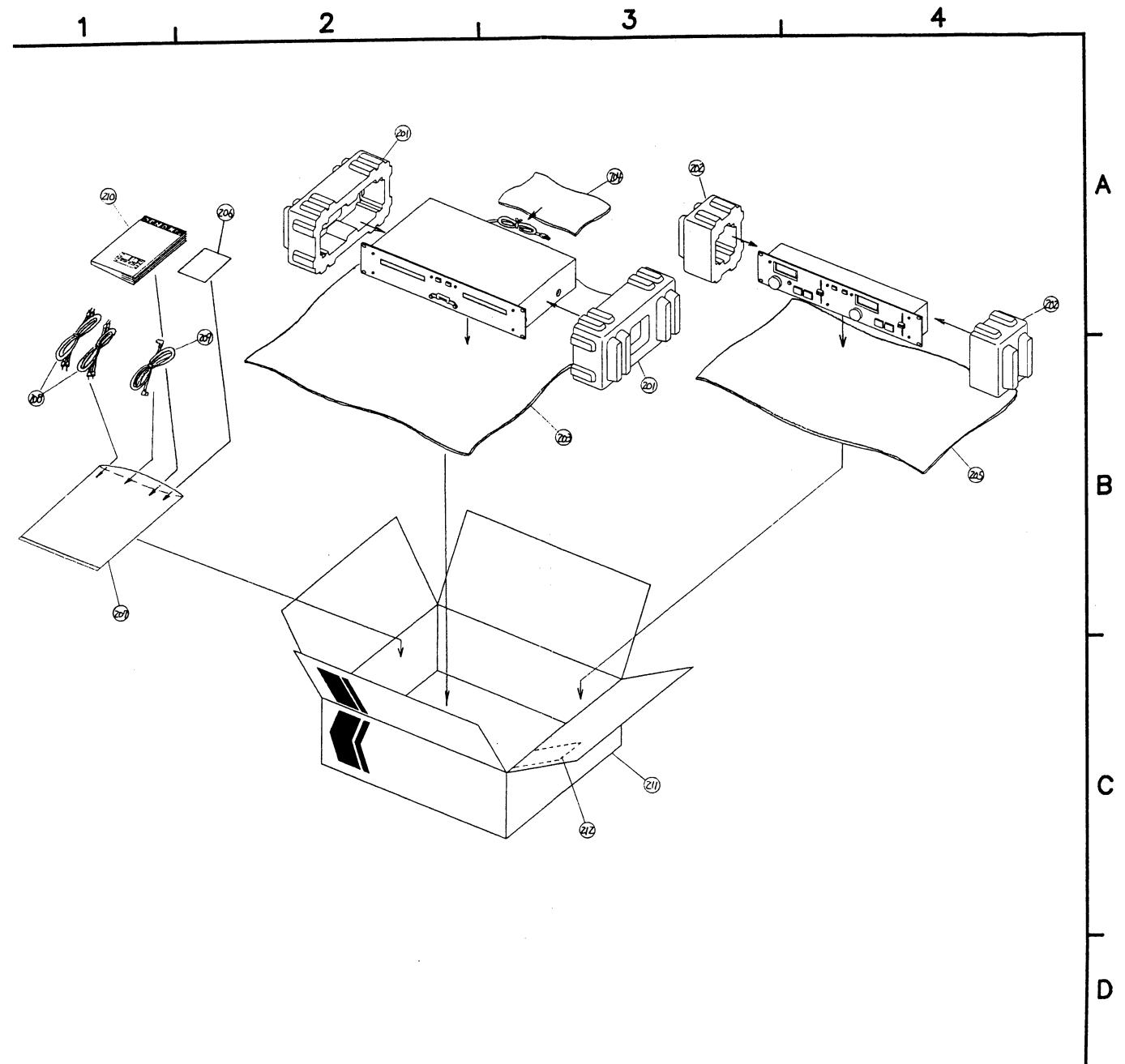
PARTS LIST OF PACKING & ACCESSORIES

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
201	503 1001 303	Cushion	For main unit	2	208	203 2360 004	2P pin cord		2
202	503 1110 003	Cushion	For remote control unit	2	209	204 2750 002	8P MD connector cord(L)		1
203	505 0102 092	Stylen paper	For main unit	1	210	511 2906 000	Operating instructions		1
204	504 0092 060	Stylen paper	For AC cord	1	211	501 1924 002	Carton case		1
			Except to U.K. model		212	515 0692 004	DEL warranty com.	U.S.A. model only	1
204	504 0170 005	Protector sheet	For AC cord	1	213	517 0114 038	UPC label	U.S.A. and Canada models	1
			U.K. model only						
205	505 0102 021	Stylen paper	For remote control unit	1		513 1389 006	Control card base		1
206	515 0754 007	Preset sheet		1					
207	505 0038 030	Poly cover	For accessories	1					

PARTS LIST OF CD MECHANISM UNIT (FG-110)

CD MECHANISM

PWB-D
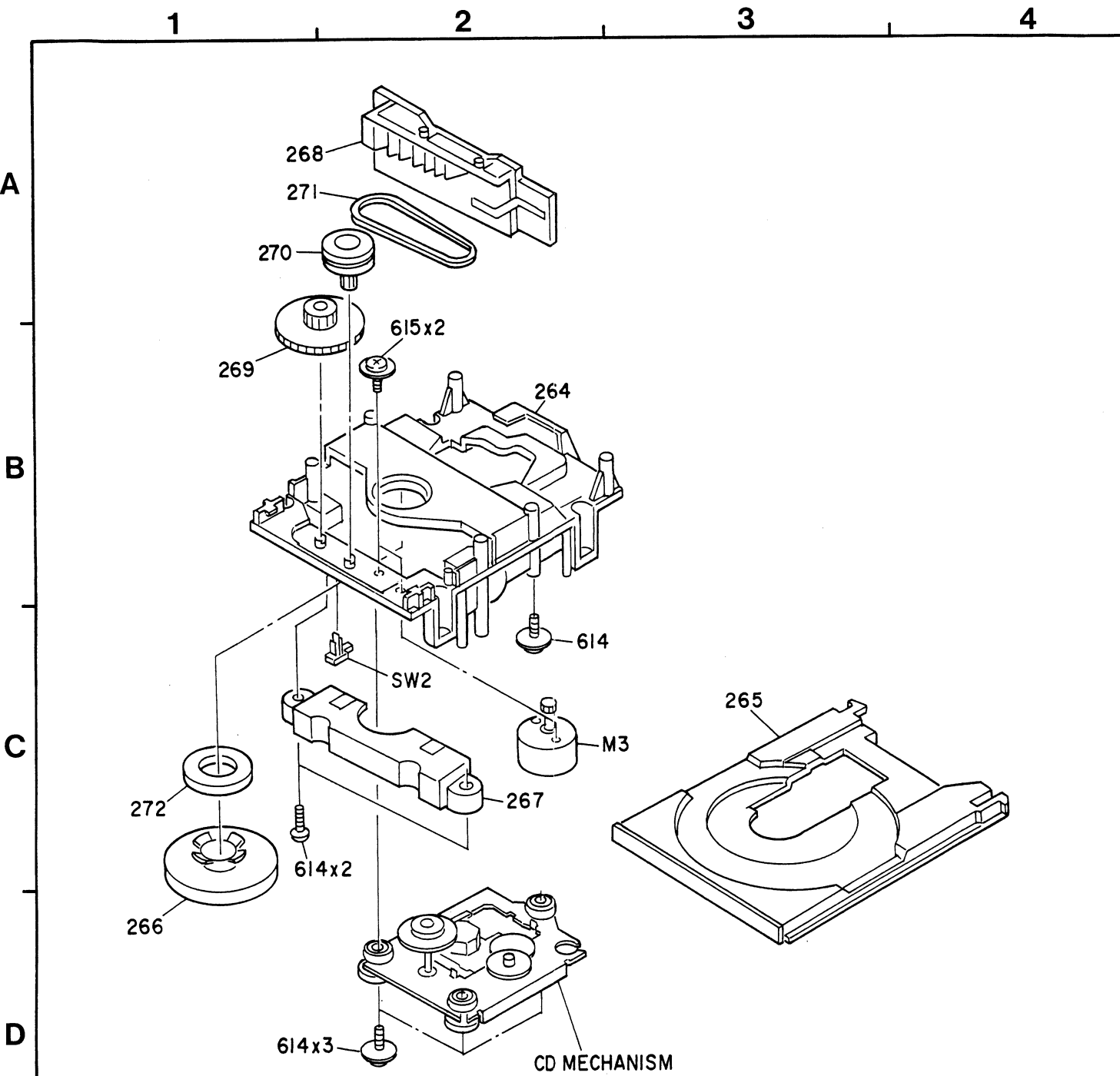
PARTS LIST OF MECHANISM UNIT (TRAY)

Ref.No.	Part No.	Part Name	Remarks	Q'ty	Ref.No.	Part No.	Part Name	Remarks	Q'ty
264	937 0122 402	Body chassis		1	271	937 0123 100	Belt drive		1
265	937 0122 509	Disc holder		1	272	937 0123 207	Magnet		1
266	937 0122 606	Stabilizer		1	M3	937 0123 304	Loading motor		1
267	937 0122 703	Mecha. holder		1	SW2	937 0123 401	Switch		1
268	937 0122 800	Gear rack		1	614	937 0121 830	Screw 2.6×10		6
269	937 0122 907	Gear tray		1	615	937 0121 843	Screw 2.6×5		2
270	937 0123 003	Pully drive		1					
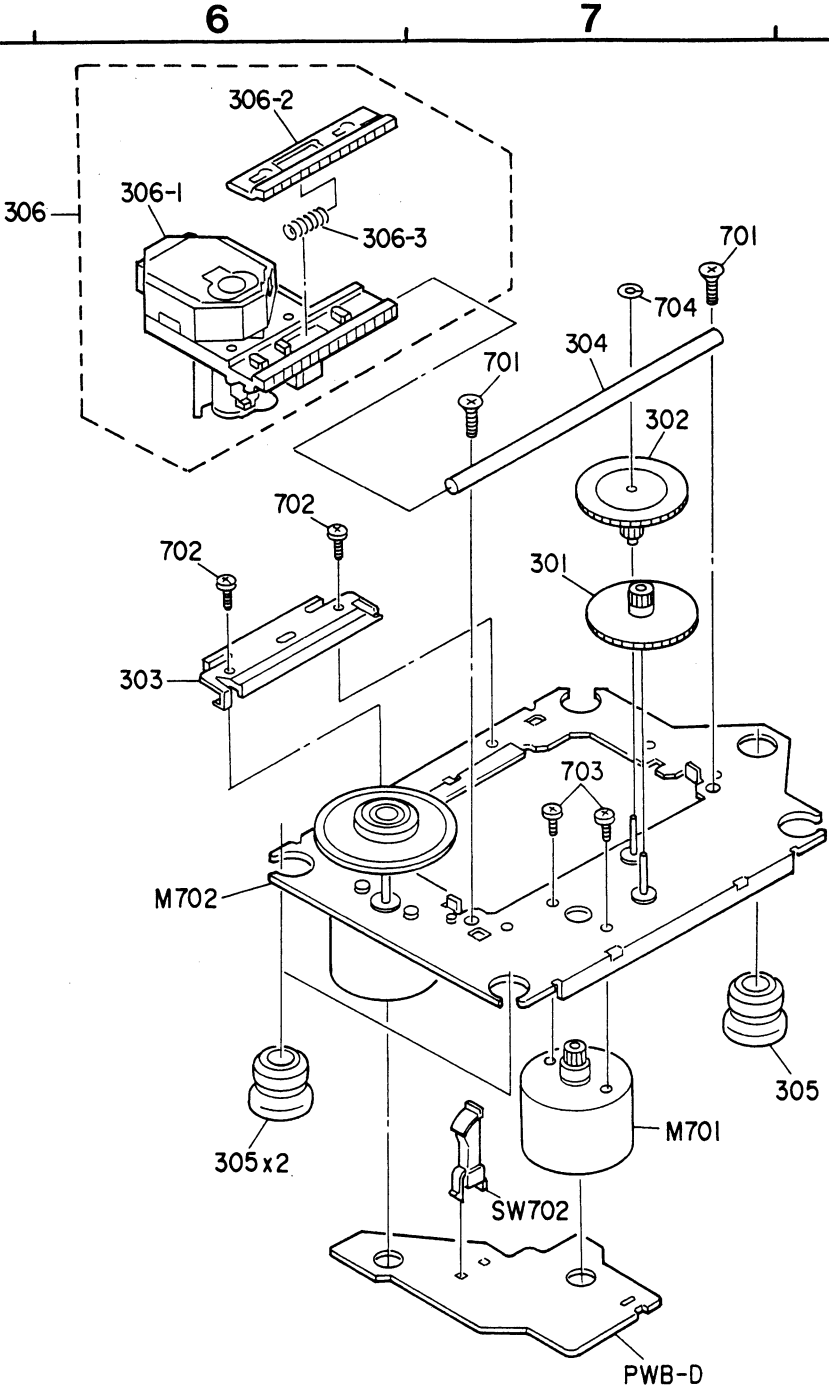
PARTS LIST OF MECHANISM UNIT (CD MECHA.)

Ref.No.	Part No.	Part Name	Remarks	Q'ty	Ref.No.	Part No.	Part Name	Remarks	Q'ty
301	937 0121 005	Gear middle		1	701	937 0121 801	Screw 2.6×6		2
302	937 0121 102	Gear drive		1	702	937 0121 814	Screw 2.0×5		2
303	937 0121 209	Rail guide		1	703	937 0121 827	Screw 2.0×3		2
304	937 0121 306	Shaft guide		1	704	937 0121 908	Washer		1
305	937 0121 403	Cushion		3	M701	937 0122 004	Motor+Gear		1
306	937 0121 500	Pickup Ass'y		1	M702	937 0122 101	Motor+Chassis		1
306-2	937 0121 607	Gear rack		1	SW702	937 0122 208	Switch		1
306-3	937 0121 704	Spring rack		1	PWB-D	937 0122 305	Board only		1

BLOCK DIAGRAM

RC-44

MC34051P

CD1

RXD
TXD
RES

CPU
μPD784021

VCO
TC9246FP

ASP
MN19413

DIGITAL FILTER
SM5841BS

D/A
PCM69AP

A.MUTE

OUT

AMP

VCO
TC9246FP

RESET IC
PST529C

POWER CIRCUIT

0V -5V 5Vx2 7V

5V

0V -5V 5Vx2 7V

CD2

DSP
MN662720

ASP
MN19412A

TRANSFORMER

HEAD AMP
AN8055

DRIVER
AN8389

DRIVER
BA6287

EJECT SW1

POWER SW

AC

EJECT SW2

Fo.Tr.

PU SPINDLE

SLIDE

LOADER

SP

WIRING DIAGRAM

GU-2943-1 LEFT UNIT

CN106A CN105A

CN106B CN105B

GU-2943-5 JUNCTION UNIT

CN102B CN101B

GU-2943-2 RIGHT UNIT

CN107A CN108A

GU-2943-3 CPU UNIT

CN104A CN103A

CN108B CN107B

CN104B CN103B

GU-2943-4 CONNECT UNIT

CN109 8PMD

RC-44 REMOTE CONTROL UNIT

CB705 8PMD

(E2,EK MODEL ONLY)

GU-2935-4
CB707 CB706

GU-2935-3 SW UNIT
CB803 3P-DS

GU-2935-2 SW.P.UNIT
CB802 3P-DS CB801 5P-PH CB701 5P-PH

AC IN
CB702 CB703

GU-2932-2 AUDIO UNIT

ANALOG OUT
RCA PIN
CB401B

FADER IN
MIN JACK

ANALOG IN
RCA PIN

CB401A

CB402B CB402A

GU-2935-1 MAIN UNIT

CB201 17PFFC

CB703 17PFFC

CB704 17PFFC

FADER IN
MIN JACK

ANALOG OUT
RCA PIN

GU-2932-1 DRIVE UNIT

GU-2932-1 DRIVE UNIT

CB401A CB401B

CB402A CB402B

GU-2932-2 AUDIO UNIT

OPTICAL PICK UP

LD FD TR

CB102 6P-PH

CB103 6P-PH

CB101 6P-PH

CB104 5P

LOADING

INSW SL SP

CD MECHA UNIT

OPTICAL PICK UP

LD FD TR

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SCHEMATIC DIAGRAM OF GU-2935 MAIN. P.W.B. UNIT

GU-2935
[MAIN PWB UNIT]

GU-2935-1
[POWER UNIT]

GU-2935-3
[POWER SW]

GU-2935-2

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT
CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
NOTICE.

1   2   3   4   5   6

RST
PC
R116 82K TRV
R123 4.7K TVD
R117 18K
C160 0.1Z C138 OPEN ECM
R118 56K
R124 10K ECS
R119 2.7K
C139 0.1Z R120 200K KICK
R125 18K R121 4.7K TRD
R126 10K CK1500P FOD
R122 2.7K
C141 CK8200P

CB101 6P-PH 5VD
R131 10K
IC103 AN8389 [DRIVER]
R127 R130 OPEN
R128 100
C133 0.1Z C132 47/16
DGND
8VP
C143 0.1Z
C134 47/16
INSW
SL MOTOR
SP MOTOR
R158 22
C135 C155 C156 C161
C142 0.1Z C135 0.1Z
PGND
R181 300K

CB102 6P-PH
C526 0.1Z
IC101 MN662720RPD [CD SERVO PROCESSOR]
C181 0.1Z VREF
C169 0.1Z

TO P.U
C144 OPEN
R114 330K TBAL
R115 330K FBAL FE
TE TACRS VDET TES RFENV
C145 CK2200P
R133 3.3K
C159 OPEN
R149
C150 220P
C151 220P
FD-
FD+
TR-
TR+
R137 R136 R135 R134
C127 0.1Z
C128 330P(J)
C129 330P(J)
C125 CK4700P
C124 CK0.047
C130 CK0.027
R111 39K
R110 220R
R113 68K
R112 27K

IC102 AN8805S [RF AMP]
TP101
FE N.C. TE HF VREF N.C.

HCV-IC
CB103 6P-PH
C149 2.2/50
TR102 2SA933
R138 10K
R139 10K
R141 OPEN
R140 OPEN
R107 3.9K
C120 0.1Z
C121 5P
C113 1/50
C114 C115 C116 C117
C112 220/10
R526 0
R535 0
C118 0.1Z
C527 220P(J)
C119 100/10
C182 100/10
L101 CHIP.L
5VS

R142 3K
R143 3K
C146 56P
IC104 BA6287 [LOADING DRIVER]

5VS
C163 0.1Z
C107 CFO.1
HD74HC4053FP IC205 5VD
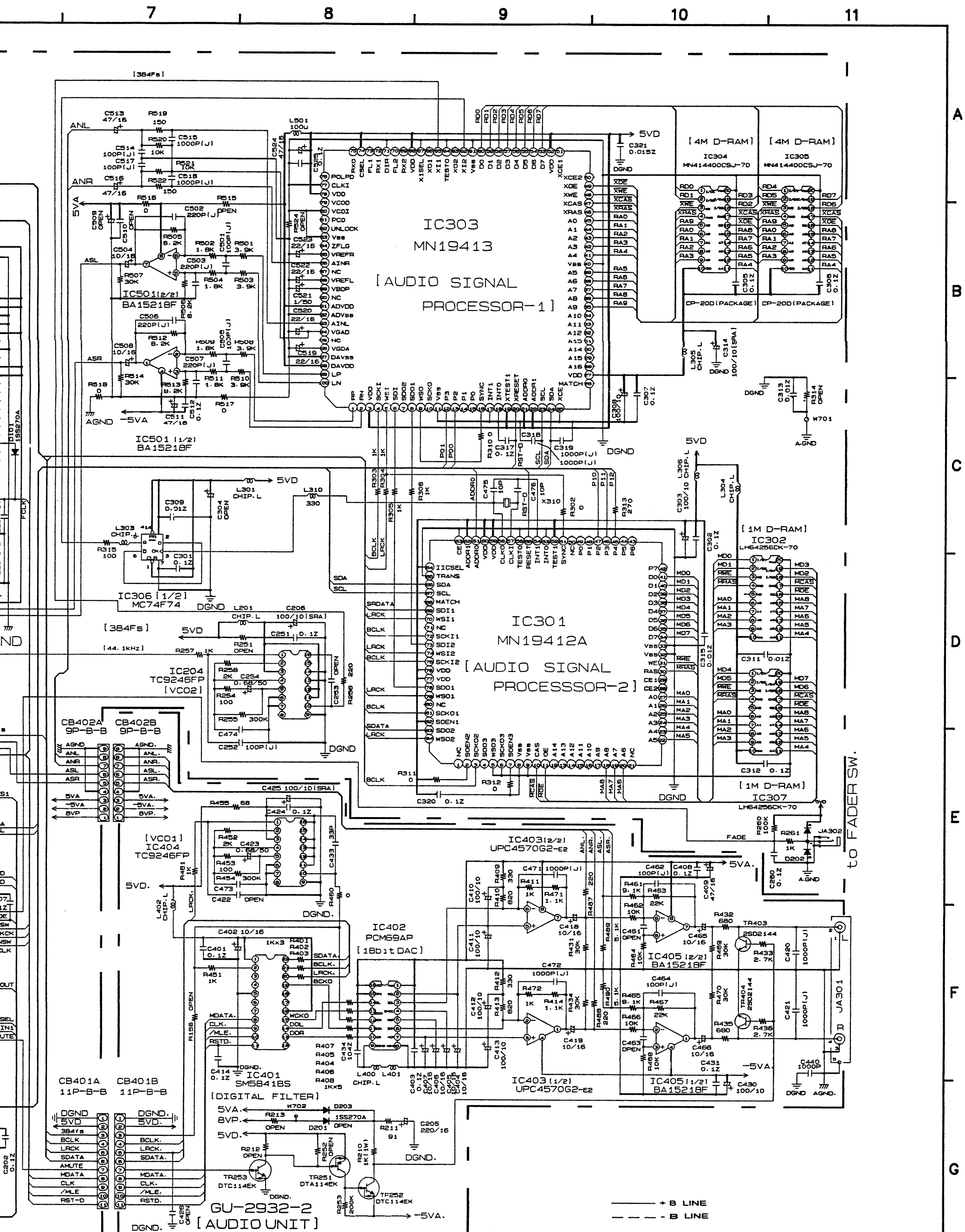R482 OPEN
R484 OPEN
R486 OPEN
C167 0.1Z
P60 P61 P62
C168 0.1Z
AGND DGND
ASR
ASL
SGND
384fs

R105 100K
C111 1000P(J)
ARF1
R103 100K R102 560 R101 680
C103 5P
C104 5P
X101(6.934MH)
R108 10K
C108 220(J)
R104 1M R106 120K
C109 CK0.022 C110 CK0.022
C105 CFO.33
R199 OPEN
C102 0.1Z
C101 220/6.3
5VS

R182 OPEN
LDOUT LDIN
R146 10K
CLOSE- OPEN-
R147 10K
TR103 2SC2412(S)
R148 1K
ZD101 HZ57B-1
8VP
CB104 5P-PH
TO LOADING

GU-2932-1
[DRIVE UNIT]

RST-D
/RST STAT SUB0 /TLOCK SENSE MLD DMUTE
C204 C203 10P
X201 CSA24.57
MDATA CLK /MLE VOCOCK
5VD
R201
C166 0.01Z
SDA
SCL
R270 10K
R271 10K

C148 47/16
C147 0.1Z
PGND

IC203 TMS27C512-15 [EEP-ROM]
IC202 TC74HC573AF [LATCH]
R527 OPEN
C165 0.1Z

IC201 UPD784021 [SYSTEM uCOM]
P31/TxD0 TXD
P30/RxD0 RXD
P27
P26/INTP5 C207 0.1Z
P25/INTP4
P24/INTP3 FADE
P23/INTP2 EJSW
P22/INTP1 BLKCK
P21/INTP0 INSW
P20/NMI FCLK
AVREF3
AVREF2
ANO1
ANO0
STOUT
AVPP
P77/AN17
P76/AN16 CDSEL
P75/AN15 STIN1
AMUTE

CB201 17P-FFC
SGND
-5VA
AGND
5VA
8VP
PGND
5VD
DGND
5VS
EJSW
TXDEN
CDSEL
RXD
STOUT
TXD
STIN1
RES1

to MAIN PWB

IC306 [2/2] MC74F74MR1
C137 100/10
C154 0.1Z
C201 100/10
DGND
S.GND

CB402A 9P-B-8
AGND
ANL
ANR
ASL
ASR
5VA
-5VA
8VP

RES1
5VD

CB401A 11P-B-8
DGND
5VD
384fs
BCLK
LRCK
SDATA
AMUTE
MDATA
CLK
/MLE
RST-D

IC303
MN19413
[AUDIO SIGNAL PROCESSOR-1]

IC301
MN19412A
[AUDIO SIGNAL PROCESSSOR-2]

IC304 MN414400CSJ-70 [4M D-RAM]
IC305 MN414400CSJ-70 [4M D-RAM]
CP-20D [PACKAGE]

IC302 LH64256CK-70 [1M D-RAM]
IC307 LH64256CK-70 [1M D-RAM]

IC501 [1/2] BA15218F
IC501 [2/2] BA15218F
IC306 [1/2] MC74F74

IC204 TC9246FP [VCO2]
IC404 TC9246FP [VCO1]

IC402 PCM69AP [18bit DAC]
IC401 SM5841BS [DIGITAL FILTER]

IC403 [1/2] UPC4570G2-E2
IC403 [2/2] UPC4570G2-E2
IC405 [1/2] BA15218F
IC405 [2/2] BA15218F

CB402A 9P-B-B
CB402B 9P-B-B
CB401A 11P-B-B
CB401B 11P-B-B

GU-2932-2 [AUDIO UNIT]

to FADER SW.

——— + B LINE
- - - - - B LINE

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

s symbol have critical characteristics.
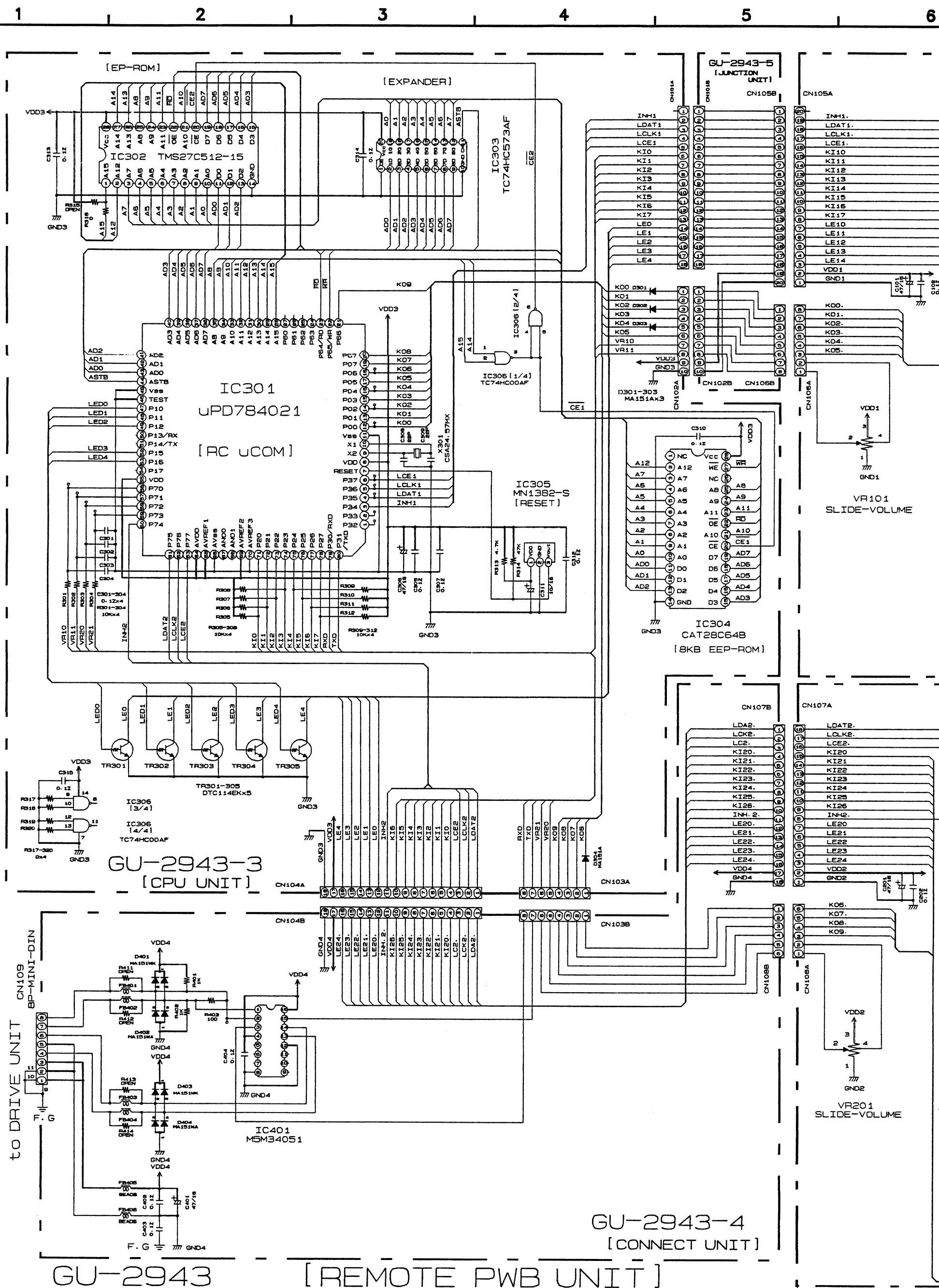nt parts recommended by the manufacturer.

nit to the customer, make sure you make either (1) a
or (2) a line to chassis resistance check. If the leakage
illiamps, or if the resistance from chassis to either side
ss than 240 kohms, the unit is defective.

nit to the customer until the problem is located and

SCHEMATIC DIAGRAM OF GU-2943 REMOTE CONTROL P.W.B. UNIT

GU-2943   [REMOTE PWB UNIT]

GU-2943-3 [CPU UNIT]

GU-2943-4 [CONNECT UNIT]

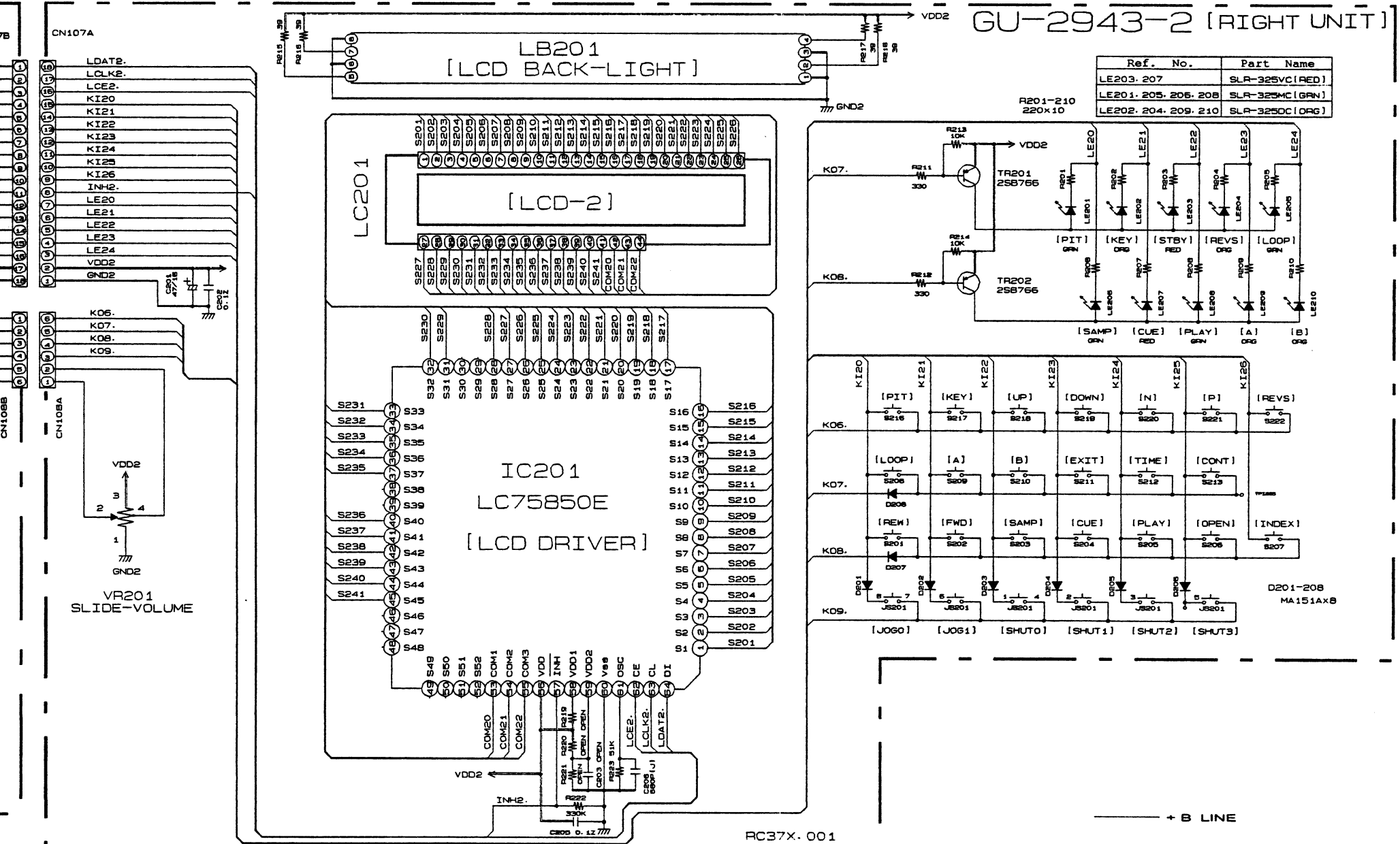GU-2943-5 [JUNCTION UNIT]

WARNING:
Parts marked with this symbol △ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

GU-2943-1 [LEFT UNIT]
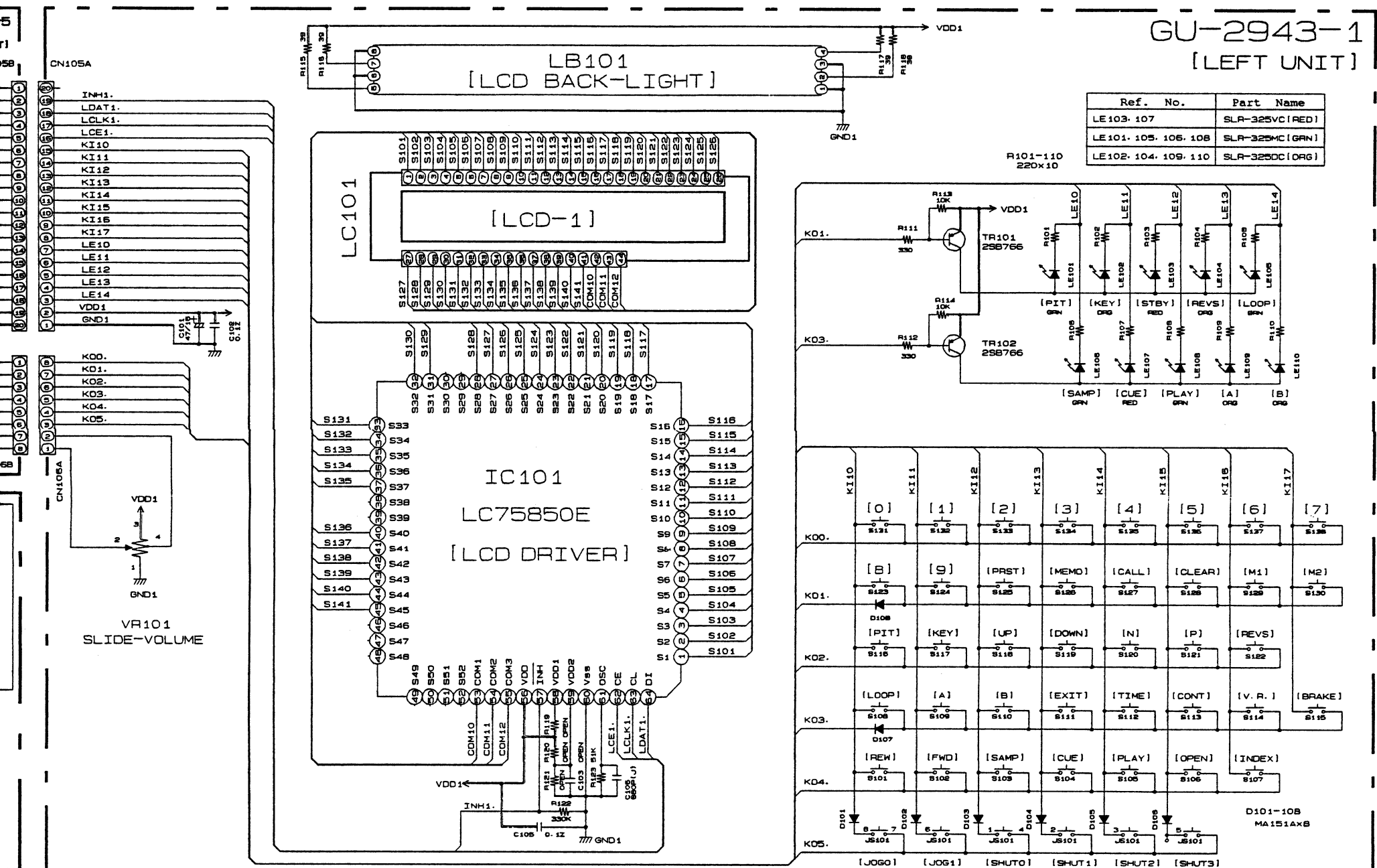
GU-2943-2 [RIGHT UNIT]

RC37X.001

── + B LINE

DENON

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